

**Applying self-determination theory (SDT) in an
emancipatory study with anxious adolescents to
investigate any changes in anxiety and wellbeing**

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Declaration

I declare that the work presented in this thesis is my own, except where stated and referenced, and has not been submitted for any other academic qualification.

Acknowledgements

A number of people have been instrumental in supporting the development, application and evaluation of this research.

I am grateful for the help of the UEL tutor team and especially my supervisor, Laura Cockburn, who believed in the value of my research and gave me many hours of her precious time to read through all of my drafts, provide feedback and discuss research related issues in tutorials.

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Abstract

This research aimed to respond to a locally and nationally identified need (anonymous local authority, 2014; Department of Health, 2015) to improve wellbeing and reduce negative affect (i.e. anxiety) in young people (YP) by applying self-determination theory (SDT) (Deci & Ryan, 2000) in an empowerment process in two secondary/upper schools in one local authority. Four groups (n=13) of students from year 10, 11 and 13 who self-reported to be anxious were invited to participate in focus groups to discuss the causes of their anxieties and suggest school based mechanisms of support. Each group decided how they wanted to feedback their ideas to senior management who then explained what they would change to address students' suggestions.

Participants' group notes from the focus groups were used to examine reported causes of anxiety and suggestions to improve wellbeing. Three quantitative questionnaires were used to measure changes in anxiety, wellbeing and need fulfilment, according to SDT, while a semi-structured questionnaire was used to measure any descriptive changes noticed by the students during the research.

Thematic analyses of the qualitative data found that participants attributed causes of anxiety to factors that thwarted SDT need fulfilment while the support strategies they suggested were those that nurtured SDT need fulfilment. Due to the small sample, statistical significance claims cannot be made. However, the data appear to suggest overall improvements in anxiety and one aspect of wellbeing (i.e. positive affect). An overall improvement in need fulfilment was found more strongly in the qualitative data and older participants (year 13) made greater gains in the dependent variables compared to their younger counterparts (year 10&11). This research has implications for schools and Educational Psychologists and offers suggestions for future research in this area.

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List of abbreviations

AC: Autonomy-controlling

APA: American Psychological Association

AS: Autonomy-supportive

ATL: Association of Teachers and Lecturers

BPNS-G: Basic Psychological Needs Scale in General

BPS: British Psychological Society

CYP: Children and young people

DV: Dependent variable

EP: Educational Psychologist

EPS: Educational Psychology Services

HCPC: Health and Care Professions Council

IV: Independent variable

LA: Local Authority

PAR: Participatory Action Research

PSHE: Personal, Social and Health Education

RQ: Research questions

SDT: Self-determination theory

YP: Young people

SCARED-R: Screen for Child Anxiety Related Emotional Disorders-Revised

SENDSCO: Special Educational Needs and Disabilities Coordinator

UK: United Kingdom

Overview

This research was developed as an intervention to empower self-declared anxious young people (YP) aged 14 – 18 to better understand their worries and inform school policies and/or strategies that they believed would support their wellbeing. It sought to elicit feedback from participants regarding their experience of the intervention in order to evaluate its impact. Self-determination theory (SDT) (Deci & Ryan, 2000) was applied in an empowerment process for volunteering students who self-reported to be anxious. The intervention took place over three phases: 1. a pre-meeting with the researcher 2. a focus group discussing potential causes of and means for supporting anxiety 3. a feedback session to senior management who responded to student requests. A mixed methods approach was used to help participants identify possible causes of anxiety, suggestions for support and to evaluate the impact of the intervention. Data for the causes and suggestions for support were gathered in focus groups while the evaluation tools included three pre-established quantitative self-report questionnaires and one semi-structured questionnaire created by the researcher to measure changes in anxiety, SDT need fulfilment and wellbeing.

Chapter 1

1.1 Introduction

This chapter will present the national and local context for this research. The local context, as described in section 1.3, suggests that a change in the school system may produce a wider positive impact in the area; therefore, a brief explanation of systems work and its relationship to this research will be presented. Additionally, the research's link to the adolescent stage of development will be explained. As wellbeing is an important variable of interest, it will be clearly defined and linked to SDT (Deci & Ryan, 2000) under the wider theoretical umbrella of positive psychology. The link is essential because this research endeavoured to find if the application of SDT would have a positive impact on wellbeing. Finally, a definition of empowerment programmes will be provided to explain how this research operationalised empowerment and the last section will conclude with a rationale for the research and an overview of the chapter.

1.2 National context for mental health

Within the United Kingdom (UK) there has been an increased awareness about the need for mental health support for YP in recent years. Collishaw, Maughan, Natarajan and Pickles (2010) surveyed a nationally representative sample of parents and YP in England in 1986 and

2006; they found that twice as many YP in 2006 reported experiencing regular feelings of depression or anxiety compared to the 1986 cohort. The UK government has also recognised the need to address mental health, thus the creation of the Children and YP's Mental Health and Wellbeing Taskforce in 2014 (Department of Health, 2015). The work of this task force had led to the development of a government report, *Future in Mind*, that aims to improve mental health support for children and young people (CYP) and their families by changing the systems (e.g. health care, education, children services, etc) surrounding them (Department of Health, 2015). Negative life outcomes (e.g. poorer health, lower educational attainment, limited employment opportunities, increased risk of crime) and the economic cost of mental health difficulties are used as arguments to justify the need to improve systems.

The Department of Health (2015) highlighted that 75% of mental health difficulties in adults (excluding dementia) begin by the age of 18; anxiety is the second most common difficulty for YP after conduct disorders. This echoes the observation that anxiety is a barrier to wellbeing in the local authority targeted for this research (see section 1.3 local context for mental health). According to the American Psychological Association online (APA, 2016), "Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure." Babor and Goldman (2008) and Partners in Healing Online (2013) describe anxiety as a continuum whereby on one end it can be useful (e.g. some worry about an exam motivating a person to study and do well) and on the other end a person may experience uncontrollable thoughts, emotions and physical sensations. Babor and Goldman (2008) explain that the 'worry cycle' can move people up the anxiety continuum. For example, the worry about an upcoming event may evoke fears about what will happen that may then induce physical responses that further heighten anxiety. The thoughts and feelings may affect the ability to concentrate and eventually lead a person to feeling extremely anxious which then continues into a cycle of thoughts, sensations and behaviours that increasingly become worse unless the cycle is broken.

Since CYP's mental health, particularly anxiety, has been presented as an area of need to target within the UK, the Department of Health (2015) has identified five main themes as a focus for positive change in systems to improve mental health and wellbeing: "1. Promoting resilience, prevention and early intervention 2. Improving access to effective support – a system without tiers 3. Care for the most vulnerable 4. Accountability and transparency and 5. Developing the workforce" (p. 13).

Schools provide a significant context for making such changes and this research will use that context to strive to address the first and fifth themes above. Empowering YP who self-identify as anxious to inform school strategies to better manage anxiety was expected to serve as a preventative/early intervention measure and, hopefully, promote resilience by enabling YP to problem solve ways of effectively dealing with emotion (i.e. theme 1). Additionally, the research was expected to provide school staff with an experience of listening to YP and addressing their needs to improve mental health; hence, through this experience, the school work force would be developed (i.e. theme 5). Furthermore, other schools may take a similar approach to supporting mental health and wellbeing in YP in order to address the local need.

1.3 Local context for mental health

Within one large local authority in England, it was noticed in the Educational Psychology Services (EPS) that there has been a rise in the cases of YP with anxiety being referred for support; more YP are seen to be choosing to self-exclude from school or are being hospitalised due to anxiety. Additionally, a local survey in schools measured emotional health and wellbeing and found that YP in this area report lower levels of wellbeing in relation to their peers across the country (anonymous local authority, 2014). For example, in this locality students reported lower self-esteem, lower life satisfaction, more worrying and were less likely to feel like their views were listened to. Furthermore, a follow-up survey was recently completed and found that as children became older (e.g. year 8, 10 and 12) the percentage of students believing that their schools care if they are happy decreased from 72% in year 4 to as low as 40% in year 10 (anonymous local authority, 2015-16). YP reported worrying most about school-work/exams, the way they looked and their future careers (anonymous local authority, 2015-2016). Because the results suggest a problem specific to CYPs in schools in one local area, the school context provides an ideal setting in which to address the problem (e.g. changing the school system to effect positive change). Through the empowerment process this research helped to target the surveys' findings that some YP do not feel listened to or that their schools care if they are happy.

1.4 Systems work

According to Fox (2015), a system can be defined as a unit containing interacting parts that influence each other. By that definition, many things can be considered systems. Systems such as families, schools and communities are particularly important to EPs' practice because the examination of those systems and how they interact with each other aids in the

understanding of complex cases. However, Fox (2016) explains that working with systems and systemic thinking are two separate things that can cause confusion. Each has a different origin; “One of these is ‘systems work’ with organisations such as schools. The other is ‘systemic thinking’ for working with families” (Fox, 2009, p 247). The former refers to wider organisational change and links to the current study. For example, this research aimed to contribute to the adaptation of the schools’ mental health and wellbeing provision. Systems work was developed in the 1940s mostly based on the cybernetic view, meaning feedback can develop a system (Fox, 2009). In this research, it means that students will influence the creation of the provision through feedback on what is or is not working and what they would like to see in the future to better support their wellbeing.

The students function as part of the system and all participants are adolescents; therefore, an understanding of how their developmental stage may affect their wellbeing is important to the context of this research.

1.5 Adolescent developmental stage

Hall (1904) described adolescence as a period of ‘storm and stress’ and the veracity of applying this statement to all teenagers has been challenged. For example, Offer (1969) criticised research presenting such findings as having biased samples (e.g. adolescents with behavioural difficulties). Arnette (1999) did a review of research into adolescent storm and stress and presented a modified version indicating that difficulties (i.e. risky behaviours, parent conflict, problems with mood particularly negative affect) are more likely to occur in adolescence than at other developmental stages, individual differences have an impact on storm and stress (e.g. low academic achievement, social difficulties, earlier behavioural difficulties, parental discord, etc) and fewer difficulties are seen in traditional, non-western countries.

Larson and Richards (1994) explained mood disruptions in terms of environmental and cognitive changes. For example, an adolescent has to adjust to many changes/transitions (e.g. physical as well as social and school expectations) and the emerging ability to think abstractly may affect how deeply a situation is considered which may include seeing underlying threats to their wellbeing (Larson & Richards, 1994).

Schlegel and Barry (1991) found that adolescents in western cultures experience greater difficulties compared to more traditional cultures (186 examined). The expectation of

adolescents to become more independent and a western cultural value on individualism was noted to be a key difference between the cultures (Schlegel & Barry, 1991). Steinberg (1987) attributed a large portion of storm and stress related difficulties to the regulation of the development of adolescents' independence. When reviewing longitudinal and international research, Hagel (2009) highlights that there is an ongoing concern that YP in the UK are having less desirable life experiences compared to YP in some other developed nations. This is pertinent to the current research as it was conducted in England and the Department of Health (2015) report that over half of mental health problems in adult life (excluding dementia) start by the age of 14 and 75% by age 18, suggesting British adolescents aged 14 - 18 may be more likely to experience a stormy period and this research specifically targeted that age range.

Furthermore, Hampel and Petermann (2005) report that the use of coping strategies (i.e. active strategies like seeking social support versus passive strategies like rumination) can affect the volatility of this developmental stage. This is relevant because the current research specifically aimed to empower adolescents to reflect upon and identify strategies to improve their ability to cope, which can impact on their level of mental health/wellbeing.

1.6 Defining mental health and wellbeing

Joshanloo and Nosratabadi (2009) report that many researchers would not define mental health as merely an absence of illness but see it as a more comprehensive state of being. Keyes (2002) described mental health as positive emotions and functioning that fall along a continuum, meaning that mental health may vary throughout life.

Across SDT research, there is variation in the way that wellbeing is defined and operationalised (see literature review section 2.5); therefore, the definition of the term as used in this research will be provided here. According to Cowen (1991), wellbeing is not just an absence of psychopathology, such as clinically diagnosed anxiety disorders, and Ryan (2009) states, "...wellbeing is not best captured by hedonic conceptions of 'happiness' alone" (p. 1). These statements suggest that there is another aspect to wellbeing. SDT sees the fulfilment of universal psychological needs (i.e. autonomy, competence and relatedness) as requirements for healthy functioning; hence, SDT "...also employs the concept of Eudaimonia, or wellbeing defined as vital, full functioning, as a complementary approach" (Ryan, 2009, p. 1). Similarly a recent report by Public Health England (Bryant, Heard & Watson, 2015) described wellbeing as being comprised of subjective feelings (e.g. satisfaction and happiness

– hedonic wellbeing) and the ability to function in isolation as well as with others (Eudaimonia wellbeing). In essence, this matches Keyes (2002) definition of mental health; thus, the terms (mental health and wellbeing) may be used interchangeably. Consequently, for the purpose of this research, wellbeing will be measured by changes in reported levels of anxiety and experiences of positive affect as well as perceptions of the ability to function effectively within one's environment. Wellbeing will be measured before and after an SDT intervention. SDT can be described as a theory falling under the wider psychological approach of positive psychology (Field, Duffy & Huggins, 2015); therefore, the next section will provide a brief overview of positive psychology that is then followed by an overview of SDT.

1.7 Positive psychology

According to Seligman (2002a), positive psychology (PP) is based on the humanistic belief that human beings want to live fulfilling and meaningful lives. It is an overarching term for scientific research and theories about what makes life good; it focuses on building competencies rather than psychopathology (Seligman & Csikszentmihalyi, 2000). The aim is to shift perspectives in psychology away from focusing on problems within people and towards building strengths to improve lives because harnessing strengths can improve wellbeing and develop resiliency skills (Seligman, 2002b). This is relevant to the current research, as students are asked to think about effective coping strategies and support mechanisms that have helped them thus far (i.e. strengths); then they use those strengths to advise the schools of the ways that school policy and/or support strategies can be improved to help YP manage anxiety. According to Cowen and Kilmer (2002) the treatment and prevention of mental health difficulties can be more effective when focusing on the positives opposed to the deficits. This links to the current research because it asks students to use their expertise to focus on the positive outcome of helping the school to improve provision for YP's wellbeing. Furthermore, Norrish, Williams, O'Connor and Robinson (2013) argue that schools provide the optimal environment to develop good mental health in YP; thus, this research applies SDT in schools to improve wellbeing and an overview of SDT is described in the next section.

1.8 Self-determination theory

According to Deci and Ryan (2000) three needs (i.e. autonomy, competence and relatedness) must be nurtured to experience personal growth and wellbeing. The degree to which

environmental conditions allow for the satisfaction of these needs is a key predictor of mental health (Deci & Ryan, 2000). Deci and Ryan (2000) state,

.....SDT recognises that there are considerable variations in surface behaviours, rituals and expressed values across cultures and developmental epochs.....However, SDT maintains that underlying these varied characteristics and behaviour expressions are universal psychological needs that subserve development and wellbeing, thus representing part of the common architecture of human nature. (p 252)

This describes SDT as coming from an adaptionalist perspective (Deci & Ryan, 2000) because it purports that everyone has the same needs to be fulfilled but because people adapt to their environment the behaviours resulting from need fulfilment will vary across cultures and subcultures (e.g. behaviours linked to different cultural values).

Deci and Ryan (2000) argue that humans have an innate propensity to adopt the values and practices of the culture around them when they feel secure, cared for and important. Children go beyond adoption and take ownership of the values and practices when supports for competence, autonomy and belongingness are in place (Deci & Ryan, 2000); thus, it is important to explain what each psychological need means.

Competence can be described as a need to have an effect on one's environment while autonomy refers to the need to self-organise and engage in activities that are aligned with an individual's sense of self (Deci & Ryan, 2000). In other words, autonomy represents an individual's free choice to engage in valued activities and competence allows the individual to effectively engage in those activities.

Bandura's (1989) self-efficacy theory emphasises the importance of competence in motivating behaviour, yet this differs to SDT because it is seen as something that is acquired rather than innate. Furthermore, it does not recognise the importance of autonomy, as defined in SDT, as it sees all motivated action as agentic but SDT would not recognise behaviours caused/motivated by external rewards to be autonomous because the motivation is not internalised (Deci & Ryan, 2000). For example, Bandura (1989, p 1175) explained that autonomous agency is when "...humans serve as entirely independent agents of their own actions" and this concept "has few, if any, serious advocates." However, Deci, Koestner and Ryan (1999) meta-analysis of a variety of experimental studies showed that autonomy and competence are needed in order to maintain intrinsic/self-regulated motivation.

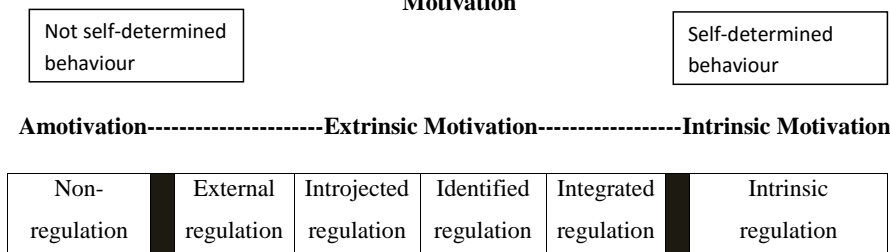
The last need in SDT, relatedness, can be defined as the need to connect to others and have caring, reciprocal relationships (Deci & Ryan, 2000). The need for relatedness is supported by attachment research showing negative developmental outcomes when this need is thwarted (Follan & Minnis 2009; Harlow, 1958).

Schools serve as an appropriate environment to nurture need fulfilment for this research. This is because participating students will be able to self-organise (e.g. make choices about how the empowerment process is done) and engage in a personally relevant activity (e.g. all self-identifying as anxious develop ideas to support anxiety in school) to support the need for autonomy. Additionally, the need for competency will be addressed because students will have an effect on their own environment by advising school based support changes and the need for belongingness will be fostered by working in a group to achieve a common goal. When the needs are supported, self-determined and intrinsically motivated behaviours are more likely to be observed; this aligns with greater wellbeing and links with lower anxiety (Black & Deci, 2000; Deci & Ryan, 2000; Wang, Hu & Guo, 2013).

In part, SDT is a theory of motivation and it links to wellbeing because the levels of motivation reflect the extent to which the basic needs have been fulfilled. Deci and Ryan (2000) explain that behaviour can reflect a continuum of motivation, on the left side behaviours are externally controlled/regulated (i.e. extrinsically motivated/least autonomous) and at the other end behaviours are self-determined/autonomously regulated (i.e. intrinsically motivated/most autonomous).

Amotivation (i.e. no motivation) precedes the continuum and is likely to be due to lack of efficacy or sense of control in relation to a desired outcome. After amotivation is external regulation, which represents behaviours controlled by rewards and punishments; introjected regulation involves partial internalisation but is still externally controlled (e.g. behaving in a way to avoid shame); identified regulation indicates that the behaviour is more internalised because its value is accepted by the individual (e.g. Exercising due to the belief that it's healthy and important, thus choosing to do it), yet this is still considered extrinsic motivation because the behaviour is externally rewarding (e.g. becoming fit); integrated regulation is the most fully internalised form of extrinsic motivation because in addition to recognising the value of the behaviour it is also integrated into aspects of the self, thus becoming self-determined behaviour. Intrinsic motivation indicates an interest to engage in a behaviour/task.

**Figure 1.1: SDT Continuum of
Motivation**



Although SDT proposes that need fulfilment leads to a more internalised level of motivation (Deci & Ryan, 2000), this research is interested in measuring changes in need fulfilment, the underlying cause of motivation, rather than motivation (i.e. one effect of need fulfilment). At the same time, the continuum of motivation is important to understand because it gives insight into the internalisation of values that impact wellbeing.

SDT posits that social values go through a process of internalisation, whereby they become personal values (Deci & Ryan, 2000). The optimal outcome of this process is that individuals integrate the values as part of the self and "...become more integrated not only intrapsychically, but also socially" (Deci & Ryan, 2000, p 236). If this process is obstructed, then the values may remain external or only partially become part of the self, thus explaining Deci and Ryan's (2000) continuum. The satisfaction of SDT's three basic needs is required for the internalisation process to occur successfully and for individuals to benefit from the positive outcomes (e.g. wellbeing) associated with autonomous regulation (Deci & Ryan, 2000; Reis, Sheldon, Gable, Roscoe & Ryan, 2000). As a result, this research is interested in measuring changes in wellbeing to evaluate the effectiveness of developing need fulfilment in the empowerment process. The next section will explain what is meant by 'empowerment' and why it is viewed as being essential to this research.

1.9 Empowerment

Bennett Cattaneo and Chapman (2010) reviewed empowerment literature and found a lack of consistency in the way it was defined. One conceptualisation sees empowerment as mastery; Rappaport (1987) described it as, "a mechanism by which people, organisations and communities gain mastery over their affairs" (p. 122). However, this has been criticised for not placing enough emphasis on the relevance of community and social wellbeing (Riger,

1993), which may represent a cultural bias towards individualistic cultures. In this research, the empowerment process worked, in part, to build relatedness within the groups to then contribute to the wellbeing of the greater school community (i.e. by advising school management of strategies to support others).

Similar to mastery, Mechanic (1991) explained empowerment as goal achievement: a process of seeing the relationship between goals, how to achieve them and outcomes. This may be considered more culturally sensitive as it highlights that empowerment concerns whatever is important/meaningful to an individual, yet it is a mostly intrapsychic concept as an individual may believe they can achieve something but not actually be successful in his/her attempts, which could cause distress. Therefore, when using this definition, the researcher would need to carefully facilitate and scaffold success to prevent vulnerable groups from feeling disempowered and possibly confirming already held negative self-beliefs (e.g. children with SEN). In this research, the groups decided upon their goals (i.e. what they would like to see happening in the school to support wellbeing) and how they wanted to influence the school (e.g. face to face, in writing, through a representative, etc). Throughout the process participants were presented with options and resources to help them achieve.

Another definition explains empowerment as participation; this recognises respectful and reflective participation in a group to gain access to resources (Rappaport, 1995). For example, Morton and Montgomery (2013) define youth empowerment programmes as “...interventions that regularly involve young people as participants in the decision-making processes that determine program design, planning, and/or implementation” (p. 23). The current research meets this definition as students collaboratively played active roles throughout the intervention (e.g. deciding on ground rules, when they meet, how they feedback to school management, what the school needs to change to support wellbeing in YP, etc) to influence school resources available to support student needs, yet the definition could be considered limited in that it specifies participation only as a means of gaining resources (Bennett Cattaneo & Chapman, 2010). Furthermore, the way in which resources are defined could be influenced by the culture/subculture of researcher/facilitator, which may not align with the participants’ views and imposing the values and views of the researcher upon the participants would be in opposition to the idea of empowerment.

Alternatively, McWhirter (1991) defined empowerment as a process of contributing towards social good, whereby those lacking in power gain insight into the power dynamics

surrounding them, develop skills to exert control without harming others and support the empowerment of others within the community. This is more of an idealised view of what a researcher might hope to encourage rather than a process that could be facilitated and McWhirter (1998) noted that failing to achieve this ideal does not necessarily suggest a lack of empowerment. In this research, participants did show an awareness of power dynamics through discussions of the roles of teachers, the government, different students, etc. and although, this intervention did not attempt to teach specific skills for empowerment, the sharing of skills and strategies amongst the groups may have contributed to skill development. Additionally, the empowerment of others in the community was outside the scope of this research, but it could be argued that changes made by the school in response to participants' feedback may provide resources that aid in the empowerment of other students.

Theoretically, it is important that the intervention empowers YP because having choice, making decisions and experiencing success are essential to supporting the need for autonomy and competence (Deci & Ryan, 2000). Moreover, Hart (1992) explained two main long term benefits of increasing YP's level of participation in programmes: 1. It "enables individuals to develop into more competent and confident members of society" 2. "improve the organisation and functioning of communities" (p. 34).

1.10 Research Rationale

This research specifically aims to address a locally identified need where increased rates of referrals for anxiety to the EPS have been observed and CYP have reported lower levels of aspects of wellbeing in comparison to national figures (Anonymous local authority, 2015). YP were asked about the possible causes for their anxieties in order to provide insight as to what YP in this area see as barriers to their wellbeing. The research also serves to address wider government initiatives to improve mental health in CYP. The Department of Health (2015) report that over half of mental health problems in adult life (excluding dementia) start by the age of 14 and 75% by age 18, which makes the intended sample of this research (i.e. year 9 – 13 students) a relevant group to target for a preventative mental health intervention. Uniquely, in this research YP were asked to play an advisory role whereby they provided advice to schools on what supports their wellbeing.

The empowerment process attempts to promote need fulfilment of the three basic needs proposed by SDT (i.e. autonomy, competence and belongingness) in order to reduce anxiety and improve wellbeing. All three key areas (i.e. needs, anxiety and wellbeing) were

quantitatively and qualitatively measured pre and post intervention to evaluate the impact of the process. The research offers a forum for students' voices to be heard in a manner of their choosing and affords them with the opportunity to affect the wellbeing support mechanisms provided in their schools. By changing the school system, this then has the potential to benefit other YP in the school who did not meet the inclusion criterion or wish to participate in the research. If the research is shown to be effective in supporting YP's wellbeing, then the model of intervention could be used in other upper/secondary schools in the area. EPs are well placed with schools to facilitate the implementation of a model like this in their schools; hence, this research may function to provide a practical tool for EP practice.

In summary, this research was designed to target a local and national need through the application of SDT in an empowerment process to improve wellbeing in YP.

1.11 Summary

This chapter aimed to provide the context and justification for this research as a topic of interest and importance. To do this, the national and local need to improve YP's wellbeing was presented and a clarification of the definition of wellbeing for the purpose of this research was given. An intervention that aims to change the school system was explained as a means for promoting improved wellbeing. The change in the system will be informed by a student led empowerment process underpinned by SDT; thus, a description of the theory was given. Finally, the purpose and potential benefits of the research was offered as a rationale for the work.

In the next chapter consideration is given to SDT literature and the application of the theory within educational settings.

Chapter 2

2.1 Introduction

The chapter provides a critical examination of the research that has been selected as being the most relevant/specific to the current research, which is also ordered from the more general to the most specific. The selected studies were chosen by doing a systematic literature review of the impact of the direct application of SDT within educational settings on YP's wellbeing. The review, in part, influenced theoretical and methodological applications of the current research (see discussion in section 2.6).

According to Aveyard (2007), “....a literature review is the comprehensive study and interpretation of literature that relates to a particular topic” (p. 5). The literature review provides a broader context for the purpose/meaning of the current research within a particular area of study (Oliver, 2012). A literature review should be systematic and replicable (Fink, 1998); therefore, the strategy used to identify the selected literature needs to be explicitly stated (see Appendix A).

2.2 Systematic literature review strategy

The literature review was conducted in September, October and November 2015 as well as April 2016. A search of electronic databases (including PsychINFO, PsychArticles, Academic Search Complete, British Education Index and Child Development & Adolescent studies) was completed using different combinations of key terms and synonyms identified as being relevant to this research (see Appendix A). Inclusion and exclusion criteria aided in the selection of the most relevant articles (see Appendix A). Additionally, previous knowledge and papers found in articles read led to further articles being selected for this chapter. Specifically, seven papers meeting the criteria were chosen to critically evaluate in section 2.5. Those studies are summarised in table 2.1

Table 2.1: Summary of key studies selected from the literature review

(studies ordered from those perceived to be the least to most relevant to the current research)

Author and date	Methodology	Educational setting and participants	Key findings relevant to the current research
Sheldon, Kassir, Smith and Share (2002)	Experimental - quantitative	Undergraduate students	Improvement in wellbeing for individuals already high in personality integration but not for the goal training condition (i.e. SDT application)
Burton, Lydon, D'Alessandro and Koestner (2006)	Study 1 – correlational (<i>doesn't meet inclusion criterion</i> of direct intervention) Study 2 - Experimental - quantitative	Study 1 - Primary Study 2- undergraduate students	Study 1 - intrinsic self-regulation predicted wellbeing Study 2 - improvement in wellbeing when primed for intrinsic regulation (i.e. SDT application)
Grolnick and Ryan (1987)	Experimental - quantitative	Primary students	Participants in controlling learning condition reported experiencing more pressure and less interest in the task compared to the non-controlling directed and non-directed groups
Joussemet , Koestner, Lekes and Houliort (2004)	Two experimental studies- (1 st study - 5 minute uninteresting task; 2 nd study - 15 minute uninteresting task) - quantitative	Primary students	Autonomy supportive conditions compared to controlled reported higher positive affect in the 5 minute task and higher task value in 15 minute task When rewards were given, behaviour and feelings about task were found to be more incongruent.
Savard et al. (2013)	Experimental - quantitative	Residential educational provision for adolescent girls with emotional and behavioural difficulties	Participants in autonomy supportive workshop, showed an increase in need fulfilment for autonomy, saw instructor as more competent, reported less negative affect and valued the task more compared to “usual” teaching method condition.

Wang et al. (2013)	Experimental - quantitative	Middle school students	Lower anxiety in the intrinsic (vs extrinsic) goal content conditions and autonomy supportive (vs controlled) goal context conditions.
Standage, Cummings and Gillison (2013)	Experimental - mixed methods	Secondary school students	Results are yet to be published

However, the next two sections, 2.3 and 2.4, aim to provide a broader context that helps to explain and evaluate the different applications of SDT within each paper discussed in section 2.5.

2.3 Self-determination theory background, link to anxiety and relevance to the educational context

Background

Self-determination theory (SDT) was first developed by Edward Deci and Richard Ryan and has generated a wealth of research in different domains (e.g. education, health care, sports, etc) and cultures over the past 45 years. It has been described as a macro-theory of motivation, personality and emotion from which micro theories have emerged (Vansteenkiste, Niemiec & Soenens, 2010). The overarching theory of SDT is explained in section 1.8 and the six micro-theories are outlined in table 2.2. Descriptions of the micro-theories are important because it will help the reader to understand the application of those theories in research that is subsequently discussed.

Table 2.2: SDT Micro-theories (SDT online, 2016)

cognitive evaluation	Explains how motivation is affected by external factors (e.g. If presented with a task where one believes (s)he can complete it, then the individual may be intrinsically motivated to do it, as the success supports the need for competence. However, if told to complete a task for tangible rewards, motivation may be perceived as controlled and thus decreases intrinsic motivation due to the need for autonomy not being supported).
organismic integration	Explains the internalisation process of external rewards when social conditions meet one's basic needs, especially autonomy and relatedness (e.g. see explanation of internalisation along the extrinsic motivation continuum in section 1.6)
causality orientations	Explains individual differences in the way people behave. Autonomous oriented individuals look for opportunities to engage

	in self-determining behaviour that aligns with their interests and values while control oriented individuals rely on external factors to regulate their behaviour (e.g. deadlines and rewards). Amotivation/impersonal oriented individuals feel that they cannot regulate their behaviour due to a lack of control.
basic psychological needs	Explains that all basic needs (autonomy, competence and relatedness) need to be supported for optimal functioning. If any of the three are not, then this can negatively impact wellbeing.
goal content	Explains that different goal types affect wellbeing and motivation because of the impact they have on need satisfaction. Intrinsic goals (e.g. good relationships, personal development, etc) compared to extrinsic goals(e.g. fame, money, etc) are associated with greater wellbeing.
relationship motivation theory	Explains that relationships (e.g. individual and group) are essential to wellbeing and good relationships foster need satisfaction in all three basic needs.

As the theory has been described, it will now be critically examined. Ryan and Niemiec (2009) acknowledge that theories are historically and culturally constructed and that SDT focuses on liberation and enhancement. The idea of liberation or autonomous behaviour may be criticised for being slightly culturally biased towards individualistic versus collectivist cultures, where the emphasis is on the individual rather than the group. On the other hand, SDT can be seen as coming from an adaptionalist perspective (Deci and Ryan, 2000) because, although it does say that people have the same needs, it recognises that people adapt to their environment, thus will produce varying behaviours across cultures and subcultures. This shows an awareness and consideration for cultural influences and the theory does recognise the need for relatedness, which may be more valued in collectivist cultures. Plus, cross cultural studies of SDT have produced findings that support the theory (e.g. Wang et al., 2013).

Another criticism of SDT may be that the three needs outlined overlook other needs that are important to wellbeing too. For example, Maslow's hierarchy (1943) proposes that basic physiological needs are essential before individuals can focus on higher level needs like a sense of belongingness. In Deci and Ryan's (2000), *The "What" and "Why" of Goal Pursuits*, article, they recognise theories highlighting physiological needs to explain motivation (e.g. Hull, 1943), yet highlight their limitations in explaining other behaviours like curious exploration, meaning they cannot explain intrinsic motivation. Therefore, it could be argued that SDT can be used to complement and extend such theories.

A strength of SDT is that it has strong explanatory power by explaining a range of behaviours and phenomena, which is reflected in the amount of SDT research done cross-culturally and in different contexts (e.g. education, sports, health care, organisations of employment, etc). Conversely, because of this, it can lose an aspect of testability/falsifiability. For example, according to basic psychological needs micro-theory, wellbeing should improve if the three basic needs are supported, yet if wellbeing doesn't improve in some individuals then the micro-theory, causality orientations, could be used to argue that it is due to individual

differences (e.g. autonomously oriented individuals will look for opportunities to engage in self-determining behaviour that aligns with their interests and is associated with better wellbeing while control oriented individuals will rely on external factors to regulate their behaviour, which is linked to poorer wellbeing).

At the same time, according to Ryan and Niemiec (2009) SDT is an empirically based theory that uses testable hypotheses through quantitative methods. Even so, this highlights another limitation because this type of research overlooks the richness of information that could be provided if qualitative methods were commonly used to present a more holistic picture. Nonetheless, SDT is an organismic theory with a wealth of research that can help make sense of how wellbeing may be influenced by need fulfilment and how anxiety, in particular, may develop.

SDT's link to anxiety

Now that the overarching theory and micro theories of SDT have been discussed, other theoretical approaches explaining anxiety will be presented and a justification as to why SDT was chosen over others. This will be followed by an SDT explanation for factors contributing to anxiety as well as evidence suggesting that an SDT intervention for anxiety is appropriate.

A biological model might propose that individuals are genetically predisposed to anxiety (e.g. Eysenck's (1967) view that genetic factors can determine a sensitive/reactive autonomic nervous system), yet a purely biological approach neglects important environmental factors and could be considered reductionistic. While from a behaviourist perspective, anxiety could be explained as a product of learnt responses through theories such as classical or operant conditioning. For example, in the famous case of Little Albert by Watson and Rayner (1920), a white rat was paired with fearful stimuli (e.g. loud noises) to create a phobia of rats, which the child then generalised to other white fluffy things. This is a plausible reason for anxiety, but it has limited explanatory power as it neglects other contributing factors such as the impact of people's thought processes on the development of anxiety. In contrast, a cognitive approach might propose that anxiety develops from faulty or maladaptive thinking processes. For instance, Eysenck (1992) suggested that anxiety develops or is maintained through an attentional bias whereby some people attend more to threatening stimuli. However, this tends to underemphasise the role of emotions and other people involved in the development of anxiety. Whereas, a psychodynamic perspective takes into account the influence of early relationships, traumatic experiences and how those experiences can be retained in the unconscious mind to influence emotions and behaviours later in life. For example, Chartier,

Walker and Stein (2001) found different psychodynamic risk factors for social phobias in a large sample of 8116 Canadians; these included sexual abuse, the absence of close relationships in childhood and parental discord. This perspective can theoretically explain a lot, but the current research wanted to understand causes of anxiety directly from the participants' experiences and it would be difficult for them to do this if it is assumed that the causes are unconscious. If the researcher tried to interpret what the participants said in order to uncover the unconscious sources of their worries, then it could take away from the voice/empowerment of the participants and would be unethical because the researcher is not a trained psychoanalyst (i.e. lacking in competence).

All of the aforementioned theories have their merits, yet the limitations highlighted above meant that the author did not feel they were appropriate for this study. Additionally, findings from the local surveys suggested that CYP were reporting factors related to SDT's three needs as adversely impacting their wellbeing. For example, they reported feeling like schools did not care if they were happy (e.g. relatedness), feeling like they were not listened to (e.g. relatedness and autonomy) and worrying about exams and school work (e.g. competence) (anonymous local authority, 2014 and 2015-2016); thus, SDT felt like an appropriate lens to use to explore their views. Consequently, an SDT explanation for anxiety will be presented next.

Deci and Ryan (2000) explain that mental health/wellbeing difficulties arise when needs go unsatisfied or "thwarted" (i.e. basic psychological needs micro-theory). For example, APA online (2004) notes that numerous studies have found students to be more anxious when students perceive that the main goal of learning is to receive external rewards (e.g. grades) opposed to those who are more involved in setting their own learning goals (Deci et al., 1999). This suggests that a lack of autonomy contributes to anxiety. According to organismic integration micro-theory, values and behaviours are internalised when social conditions nurture the three needs and this relates to social acceptance, rather than social anxiety (Deci & Ryan, 2000). Even a difference in one level of motivation (i.e. introjected vs identified students) has shown a difference in anxiety with introjected students (i.e. partial internalisation of behaviours but still externally controlled) being more anxious and utilising more maladaptive coping mechanisms compared to identified students (Ryan & Connell, 1989). The importance of social acceptance is extended by relationship motivation micro-theory, as good relationships are reported to be essential to wellbeing and support the need for relatedness, autonomy and to a lesser extent competence (SDT online, 2016). La Guardia,

Ryan, Couchman and Deci (2000) found that individuals showed variations in the attachment styles they had with others and this was a function of the extent to which others were responsive to the individual's three basic needs. Furthermore, the causality orientations micro-theory specifically links a lack of control and competence to the amotivation orientation, whereby the individual is characterised by anxiety (SDT online, 2016). Deci and Ryan (1985) found a positive correlation between controlled orientation and self-consciousness and found that amotivation orientation was linked to social anxiety.

As SDT has been used to explain factors contributing to levels of anxiety, the application of SDT can arguably be used in the reduction of anxiety. For example, in a prospective study Black and Deci (2000) found students' perceptions of autonomy supportive teaching (i.e. an approach that nurtures the three SDT needs - explained below) predicted a decrease in anxiety over one semester. Similarly, Wang et al. (2013) found that when goals were framed intrinsically (i.e. goal content micro-theory), students reported significantly lower levels of anxiety compared to the extrinsic condition. These findings indicate that for this research it is essential to discuss how SDT can be effectively applied in an educational context.

SDT's relevance to the educational context

Although this research does not aim to change teaching styles through SDT, it does aim to apply the theory in a school context. As a result, it is important to know how SDT's three psychological needs have been nurtured by teachers in this environment. A range of research examines the impact of autonomy-supportive (AS) versus autonomy-controlling (AC) teaching styles (e.g. environments, communication, tasks, etc) on students (e.g. Black & Deci, 2000; Deci et al, 1981; Kage & Namiki, 1990; Koestner, Ryan, Bernieri & Holt, 1984; Kusurkar, Croiset & Ten Cate, 2011; Pelletier, Sequin-Levesque & Legault, 2002; Reeve, Jang, Hardre & Omura, 2002; Roth, Assor, Kanat-Maymon & Kaplan, 2007; Vansteenkiste, Simon, Lens, Sheldon & Deci, 2004) and this begs the questions of what is autonomy-supportive teaching and what does it look like in practice.

Autonomy-supportive (AS) teaching is the term used in SDT literature to describe an approach to teaching that nurtures basic needs because it helps students to feel autonomous, competent and valued by their teachers (i.e. relatedness) (Kusurkar et al., 2011).

According to Niemiec and Ryan (2009), autonomy in the classroom can be supported by providing choices for academic activities, giving meaningful explanations for why a learning

task is useful (Reeve et al., 2002), valuing students' voice (Black & Deci, 2000) and minimising the importance of evaluative pressures as well as reducing the use of persuasion through sanctions (Reeve, Jang, Carrell, Jeon & Barch, 2004). Research suggests that autonomy support is associated with higher motivation to learn (Chirkov & Ryan, 2001; Reeve et al., 2002). Reeve et al. (2004) and Vansteenkiste et al. (2004) explain that autonomy is nurtured when teachers provide opportunities that allow students to use their interests and values to guide their learning; this is opposed to autonomy controlling teachers that use external incentives and controlling language to impose what the teacher wants the students to do, feel and think.

Competency can be promoted through the use of suitably challenging learning tasks and appropriate scaffolding, including effective feedback that is less focused on evaluation but emphasises students' effectiveness and provides clear guidance on how to master the task (Kage & Namiki, 1990; Niemiec & Ryan, 2009).

Relatedness can be engendered in the classroom when students feel liked, valued and respected by the teacher (Niemiec & Ryan, 2009). Acknowledging and empathising with students' experience of negative affect is a means through which students can feel valued and related to the teacher (Reeve et al., 2004; Savard, Joussemet, Pelletier & Mageau, 2013).

A few examples of the advantages of AS teaching can be found below:

- Reeve et al. (2004) found that the more teachers used AS teaching strategies, the more students became engaged in learning tasks.
- Savard et al. (2013) found that students perceived AS instructors as being more competent.
- Deci, Schwartz, Sheinman and Ryan (1981) reported that children with AS teachers had higher self-esteem and were more intrinsically motivated compared to those with AC teachers.

However, the satisfaction of teachers' needs can also have an impact on supporting the needs of CYP (Niemiec & Ryan, 2009). For example, external pressures (e.g. pressure to perform, imposed curriculum) placed on teachers has been associated with teachers using more autonomy-controlling (e.g. giving solutions and ensuring the child implements the solutions) and less autonomy-supportive strategies (e.g. promoting student led problem solving) in the classroom (Pelletier et al., 2002; Ryan & Brown, 2005; Roth et al., 2007). Consequently, it is

theoretically and ethically important that all participants, including teachers, taking part in this research do not feel pressured to be involved.

While this section was meant to illustrate how SDT's needs can be nurtured in schools, the current research aims to measure any changes in student outcomes following the application of an SDT intervention; therefore, the next section gives some examples of outcomes as measured in previous research.

2.4 Self-determination theory research outcomes

As there is a wealth of research showing related outcomes when SDT needs are supported, not all can be discussed in this section, but a few examples are presented below because they measure wellbeing/aspects of wellbeing (i.e. a key area of interest for the current research) or link to wellbeing by supporting the need for competence as measured by academic outcomes.

Wellbeing

Burton et al. (2006) found that children who were more intrinsically motivated reported higher levels of positive affect and life satisfaction. As previously mentioned, the satisfaction of SDT's basic needs enables the internalisation of behaviours that become self-determined (i.e. more intrinsically motivated) and the following research further demonstrates the influence of need satisfaction on wellbeing.

Sheldon, Ryan and Reis (1996) measured the impact of daily autonomy and competence need fulfilment on wellbeing in undergraduates and found both needs to be associated with positive affect and vitality. Whereas Standage, Gillison, Ntoumanis and Treasure (2012) found that relatedness need satisfaction was positively correlated with health-related quality of life for secondary school students. Although, these studies provide evidence for the connection between different need fulfilment and wellbeing, Deci and Ryan (2000) and Reis et al. (2000) suggest that all three needs should be satisfied for optimal personal growth. Consequently, Reis et al. (2000) studied the impact of daily need satisfaction on wellbeing in adolescents and adults and found all three to be significantly associated to wellbeing.

All of the above studies illustrate the link between need fulfilment and wellbeing; however, the variables are measured as naturally occurring, meaning that no intervention or additional support to nurture need fulfilment was provided to measure an impact on wellbeing, which is

what this research aims to do. As a result, the most relevant previous research is that which is experimental in nature and will be critically discussed in section 2.5 (literature review).

Achievement

Moreover, research has consistently found that students who are more intrinsically motivated with better need satisfaction perform better academically. This is relevant to student wellbeing because those who are achieving their learning goals are more likely to feel a sense of competence that contributes to their overall wellbeing. For example, Grolnick and Ryan (1987) found that when children were directed to learn in a controlling way (i.e. not autonomy-supportive), they demonstrated a deterioration of rote learning compared to those who were directed in a non-controlling way, thus suggesting that autonomy support may facilitate better long term memory of learning material. It could be argued that rote learning is a form of superficial, surface learning; nonetheless, the research still demonstrates a negative impact on child's acquisition of knowledge when AC teaching styles are used. Furthermore, Kage and Namiki (1990) showed that children who received autonomy support (i.e. given a task to learn, answer questions and then receive supportive feedback) demonstrated more comprehensive learning of the material compared to those who were told they would be evaluated (i.e. graded). Grolnick, Ryan and Deci (1991) found that parental autonomy support and involvement predicted perceived autonomy and competence in children, which then predicted academic achievement. This shows that support given can affect a child's perception of need satisfaction, which in turn affects performance.

Even though academic achievement is a key variable found in SDT research, the current research will only take place over a short period of time; thus, it is unlikely to find meaningful changes in curriculum levels, so academic achievement will not be measured.

Now that the broader background information has been presented, the next section will critically examine previous research that was found to be more specific to the current research (e.g. SDT experimental, direct interventions within an educational context). However, the earlier sections (e.g. Table 2.1) will be referenced to help the reader see how the general background information/theory links to the studies discussed below.

2.5 Self-determination theory applied in educational interventions (literature review)

The following seven studies were selected using the systematic literature review strategy (see appendix A) to choose the previous research that seemed most relevant to this study. All

studies applied SDT as an intervention to measure the impact on wellbeing in an educational context. The first ones presented have a more general link to the current research and subsequently presented studies become progressively more related. Although some of the following studies looked at changes in different variables, only findings in relation to wellbeing will be discussed due to the present research's focus on this variable.

Sheldon et al. (2002)

Sheldon et al. (2002) used a goal training programme to enhance the process of goal attainment, which was hypothesised to lead to improvements in psychological growth and wellbeing in undergraduate students. They applied SDT's micro-theory of organismic integration (i.e. supporting participants to find ways to take greater ownership of goals and make goals more enjoyable) as well as Sheldon and Kasser's (1995) concept of systemic integration (i.e. helping participants to link their short-term goals to their wider plans or possible futures and maintain balance in their goal system). This was done in an experimental group through two sessions, one group session and one individual counselling session. There were no significant differences in the wellbeing measures of the intervention group compared to the control group. However, benefits were found (e.g. improvements in vitality, wellbeing, goal progress, etc) for those who were already high in personality integration (i.e. organismic and systemic integration combined).

Two possible limitations of the design may have affected the effectiveness of the goal training programme. Firstly, the study nurtured the need for autonomy in each session and if the participants could use the strategies they learned to support their goals then this would have given them experiences of competence. However, there appeared to be a lack of nurturing for participants' need for relatedness. For example, all participants were focusing on their own goals in the group and individual sessions rather than a common goal to unite them. In the group session, they did not discuss what they could do collectively to support each other with their goals and they were asked not to speak about the study with any other person. According to Deci and Ryan (2000) and Reis et al. (2000) the satisfaction of SDT's three basic needs is required for the internalisation process (i.e. organismic integration) to occur successfully and for individuals to benefit from the positive outcomes (e.g. wellbeing) associated with autonomous regulation. This could be a possible explanation for why the intervention was not successful. Secondly, it could be argued that the participants' autonomy was undermined because they could not choose to be in the experimental or control group but

were randomly assigned. Moreover, they were given extra course credit for signing up for the study initially and Deci and Ryan (2000) explain that such rewards can have a negative impact on intrinsic motivation (also see cognitive evaluation- SDT micro-theory in section 2.3).

Similar to Sheldon et al. (2002), Burton et al. (2006) found that children who were already higher in organismic integration (i.e. more intrinsically motivated) reported higher levels of positive affect and life satisfaction. In a second study Burton et al. (2006) attempted to induce/prime autonomous orientations (i.e. causality orientation, an SDT micro-theory in section 2.3) in two experimental groups (one intrinsically primed and the other primed for integrated regulation/most internalised form of extrinsic motivation) of undergraduates ten days before and hours after completing a midterm exam. Burton et al. (2006) claim that priming intrinsic motivation led to significant improvements in wellbeing and higher wellbeing in relation to other conditions. However, there may be other psychological reasons for this. Firstly, participants were primed through the wording of questions on a questionnaire using a Likert scale (i.e. saying how much they agree or disagree with statements written) and writing task. Responses may have been affected by the social desirability bias (Flanagan & Russell, 2011), whereby participants give answers they think make them look good opposed to truthful/valid responses. For example, in the intrinsic condition they had the statement, “I enjoy the course materials “, whereas the identified condition had “I value being able to learn from the course materials” (p 755) and the control condition had no question. They may have been more likely to agree with these statements because they thought that was the desirable thing to say, rather than the statements actually activating their internal motivations. Secondly, in the writing task they had to write about mastering the course materials and the same language to prime motivation types was used in the instructions (e.g. enjoy for intrinsic and value for identified). According to Festinger (1962), cognitive dissonance is a psychological discomfort that occurs when our behaviours do not align with our opinions; therefore, people will try to reduce the dissonance by altering behaviours to fit opinions or vice versa. In Burton et al.’s (2006) study it could possibly be said that participants in those conditions where they initially reported enjoying the course materials, for example, may have experienced dissonance (e.g. previous writing about enjoying materials was in contrast to their experience) but then were asked about life satisfaction. In order to reduce the dissonance, it is possible that participants felt that they needed to report higher levels of satisfaction to reflect what they had previously said about

enjoying the course. Consequently, the findings regarding wellbeing may be invalid. Furthermore, like Sheldon et al.'s (2002) study, Burton et al. (2006) could be criticised for undermining autonomy. This is a North American study and in North America it is typical that psychology undergraduates receive course credits to participate in psychological studies that contribute towards their degree (Flanagan & Russell, 2011) and they were paid (i.e. a tangible extrinsic motivator undermining autonomy) to take part. Importantly, participants were manipulated through this priming, rather than experiencing an intervention that genuinely attempts to nurture SDT's three basic needs; hence, theoretically, a prediction of greater wellbeing in the experimental groups is not a sound or valid hypothesis to make. Another rift between Burton et al.'s study and the theory can be found in the measurement used for wellbeing; a life satisfaction survey does not measure SDT's definition of wellbeing (see section 1.6) because it only measures the subjective component of the construct. At the same time, Burton et al. (2006) wrote, "We believe that our procedure can lead individuals to discover and recognize the existing intrinsically motivating aspects of their goal pursuits but would not successfully create intrinsic motivation *ex nihilo*" (p 759, 760). This statement indicates an awareness of the separation between theory and experimental procedure and makes the conclusions about wellbeing in relation to priming slightly more palatable.

Conversely, Grolnick and Ryan (1987) manipulated conditions to develop or thwart autonomy in three conditions, thus attending to one of the children's basic needs. They did this through a controlling condition (i.e. giving a reading passage and telling children they will be graded and evaluated based on their answers to questions about the reading passage to see if they're learning well enough); non-controlling, directed condition (telling children they will be asked about the passage but only to see what they've learned) and the non-directed condition (children were told that they would be asked similar questions to that of a previous reading passage experience, but, in fact, the previous questions had nothing to do with the actual passage; therefore, their focus was not directed). Although the study was mostly about how controlling versus non-controlling conditions affect different types of learning (i.e. rote and conceptual), they did measure the impact of the conditions on interest, enjoyment and feelings of tension/pressure, which could be said to represent the subjective element of wellbeing. They found that those in the controlling condition felt significantly more pressure and less interest compared to the other two conditions, which helpfully suggests the benefits of creating an environment that nurtures autonomy. On the other hand, the measures of wellbeing in this case could be criticised, as they appeared to be created for this study and

lacking in the rigorous psychometric testing that some other measures have. However, Grolnick and Ryan (1987) did run a factor analysis and found the expected loading on key factors.

Like Grolnick and Ryan (1987) Joussemet et al. (2004) created a condition to nurture SDT's basic needs in children in Montreal but used an autonomy supportive educational environment, which should address all three. They compared outcomes (i.e. happiness, value of activity, time spent freely engaging in the uninteresting task after the task) in autonomy-supportive (AS) versus controlling conditions when presented with an uninteresting task. Each condition was further split into two more conditions (reward or no reward). The use of an uninteresting task is particularly relevant to education, as often CYP are asked to engage in learning topics that they do not find intrinsically motivating and in education tangible rewards (e.g. star charts, free choice play, sweets, etc) are used to elicit desirable behaviours, especially in children with "behavioural difficulties". The results showed that AS groups experienced higher positive affect in a five minute uninteresting task, perceived the task to be more valuable when it was longer (i.e. 15minutes) and overall the AS conditions demonstrated better self-determined regulation. Rewards were found to hinder task integration, meaning there was a lack of congruence between the way the children felt about the task and their behaviour (e.g. reporting to value and be happy when doing the task and then spend little free time engaging in it). The authors suggested that this may be due to a reactive response to rewards, which may actually thwart need satisfaction. Joussemet et al. (2004) did two studies (short, 5 minute and long, 15 minute versions) using different children, which supports the reliability of the overall findings and controls for practice effects. However, when analysing the impact of other variables (e.g. gender, grade, experimenter used) on the dependent variables, the experimenter (in the second study) was the only variable found to have a statistically significant impact on affect, yet this was not further discussed. This could be an important confounding variable that relates to the application of SDT. For example, one experimenter may have presented in a different way that better nurtured children's needs for relatedness, thus affecting how happy children reported feeling during the task. Additionally, although autonomy support is meant to nurture all three needs, it was difficult to identify strategies used in the study to support competence, other than giving the children a task which was at a level that they were all able to complete.

The last two studies presented usefully challenge the first two in that they demonstrate and introduce a discussion regarding wider reaching positive outcomes when SDT is applied. Sheldon et al. (2002) and Burton et al. (2006) emphasise the benefits of those CYP who are already highly self-determined, whereas Grolnick and Ryan (1987) and Joussemet et al. (2004) present a positive impact for a more general population of CYP regardless of individual differences. In fact, Joussemet et al. (2004) did not find a significant effect of self-regulatory skills (i.e. individual difference) on any of the dependent variables and found that the child's level of behavioural regulation did not moderate the impact of controls and rewards on their results, thus questioning the usefulness of behavioural methods as a means of controlling "naughty" behaviour.

Savard et al. (2013) investigated the effects of autonomy-supportive (AS) teaching of an uninteresting task, but they did this with a more vulnerable group of adolescent girls who were in a specialist, residential provision in Montreal for severe emotional behavioural problems. This is relevant to the current study, as vulnerable participants (i.e. self-reporting anxious adolescents) are of central interest to the research. Participants in Savard et al.'s (2013) AS condition reported less negative affect, found the task more valuable and perceived the instructor to be more competent in comparison to the usual workshops (NB: usual workshops resemble more autonomy controlling methods but were deemed to be neutral). Savard et al. (2013) also measured levels of need fulfilment for autonomy and found an increase in autonomy compared to the baseline measure and to the non-AS condition, but this was not significant. The authors suggest that autonomy may not be the primary mechanism influencing the positive effects found. It is this point that highlights limitations of the study. For example, the authors comment on how the adolescents usually receive more controlling messages (e.g. Be quiet or I'm going to move you.), but the AS condition conveyed empathetic messages that may have led to the participants feeling more connected to the instructor (e.g. I know it's difficult to be quiet when sitting next to a friend. If it's too difficult, you can choose to go to a different seat.); therefore, a significant difference in relatedness may have been found but this was not measured. Additionally, the authors state, "This study contradicts the prevalent belief that difficult children and adolescents need more extrinsic motivators" (p 698), which is interesting because they extrinsically motivated participants by paying them to take part. That might go some way to explaining why there was not a statistically significant change in autonomy. Plus, it was only one AS session, which may not be enough. However, the study is invaluable in the sense that

it is providing well controlled, empirical findings to promote the discussion of specialist educators using less punitive and more supportive means for equipping vulnerable YP with the skills needed to function successfully in society.

Wang et al. (2013) manipulated goal content (i.e. framing goals as intrinsic or extrinsic in written instructions- see SDT goal content micro-theory in section 2.3) and goal context (i.e. AS versus autonomy-controlling instructions) with Chinese students (mean age approximately 14) to see the effects on learning performance, free choice task engagement and test anxiety. Although the culture and method of intervention (i.e. written instructions) is different from the current research, it is particularly relevant in the fact that it examines an aspect of anxiety. Wang et al. (2013) found that, overall, in the intrinsic goal content condition students reported statistically lower levels of anxiety compared to the extrinsic condition. A similar finding was found when looking at the main effects of goal context (i.e. lower anxiety in AS conditions). Interestingly, in the extrinsic goal content condition there was no difference in anxiety levels when comparing goal context. This was particularly surprising considering the extent to which the autonomy-controlling context was operationalised in the written instructions (i.e. “You must learn more about it. You do not have a choice. If you do not finish this required learning task, you will hardly graduate” (p. 114). However, this may be due to cultural differences. Wang et al. (2013) explained that the difference may be due to psychological controls more frequently used in Eastern societies (e.g. shaming procedures); therefore, the autonomy-controlling message may be perceived more harshly and have a different effect on British YP. At the same time, this study is useful in highlighting the potential reduction in anxiety when AS messages are conveyed in an educational context.

In the same year, Standage et al. (2013) applied SDT in an intervention to develop the three basic needs in England to measure changes in secondary students’ wellbeing. While all of the aforementioned studies have applied SDT using quantitative measures, Standage et al. (2013) took a mixed methods approach to investigate changes in secondary pupils’ wellbeing (i.e. the full SDT definition of wellbeing) in response to a school based empowerment programme in England called ‘Be the Best You Can Be’. Mixed methods was used to measure the magnitude of changes, provide insight into the mechanisms of change, identify differences in the impact of change for different groups of children and provide evaluative feedback on the programme. Standage et al. (2013) states that, to their knowledge, this is the first application of mixed methods in SDT literature and is a response to a call from previous

research for this type of approach; this is another aspect of the study that makes it relevant to the current research. However, the results have yet to be published and when Professor Standage was contacted he did not indicate a date of publication (i.e. it will be published once his current grant is completed). Furthermore, as the programme has not been created by YP but professionals, the degree to which the intervention is empowering could be argued. On the other hand, focus groups with YP were done, in part, to identify how the programme can be improved and need satisfaction enhanced within it; therefore, YP are contributing to the future design of the programme to some extent.

2.6 Bringing the literature together

Over the last five decades, SDT has produced a wealth of research in different countries showing positive impacts of its applications in many different contexts (e.g. education, health care, sport, etc), which has further developed the theory. Interventions in educational contexts consistently show positive outcomes when SDT is applied. However, some studies have chosen to use tools that measure SDT's full definition of wellbeing (e.g. Sheldon et al. 2002; Standage et al. 2013) while others have not (e.g. Grolnick & Ryan, 1987, Savard et al. 2013) and many studies have not focused on developing all three basic needs in interventions (e.g. Burton et al, 2006; Wang et al., 2013). The current research builds upon the methodology of previous research (e.g. applying strategies used to nurture the three needs – see section 2.3-, using standardised quantitative measures and using some of the same measures like the Ryff Scales); however, it also aims to investigate gaps in the literature. For example, there appears to be a lack of mixed method research in SDT literature and a lack of empowerment focused research using SDT; therefore, the current research hopes to contribute to the literature by creating a student led empowerment intervention to develop all three basic needs and improve wellbeing using a mixed methods approach. Furthermore, the current research aimed to fully operationalise the variable of wellbeing as is defined by the SDT authors (Ryan, 2009) and this has not always been the case in previous research.

2.7 Summary

In this chapter, the development of SDT as a theory has been outlined as well as its application in educational contexts. Specifically, there has been discussion about the ways in which the three basic needs can be developed and associated outcomes found when SDT is applied in education is presented. Through a systematic literature review, this chapter critically reviews SDT interventions used in education that are relevant to the current research and identifies ways in which the current research can contribute to the pre-existing literature. The next chapter will describe the methodology used in this research, which is influenced by positive psychology as well as SDT and empowerment research.

As in positive psychology (Seligman, 2002b; Cowen & Kilmer, 2002), participants will be asked to focus on the strengths/resources they already have in order to develop suggestions for ways in which the schools can improve the way they support student wellbeing. Additionally, strategies and methodological tools found in SDT research will be applied in the empowerment process. As empowerment programmes regularly involve YP in the decision making process (Morton & Montgomery, 2013), they provide an opportunity to nurture participants' needs for autonomy and competency. The next chapter will demonstrate how the participants in this research exert their power in the planning, process and outcomes of the empowerment intervention.

Chapter 3

3.1 Introduction

The overall purpose of this chapter is to provide insight into how the research was completed and why each aspect of the methodology was chosen. The ontology and epistemology of the research will be explained to provide an understanding of the researcher's world view and approach to research while the details of the participants, design, procedures, data collection methods and ethics will be discussed to illustrate the implementation of the work as well as justify methodological choices.

This chapter will explicitly state the qualitative and quantitative research questions. Quantitative questions will be accompanied by directional hypotheses. This is because, previous research suggests improvements in wellbeing when SDT is applied to support need fulfilment (Grolnick & Ryan, 1987; Joussemet et al., 2004; Savard et al., 2013; Wang et al., 2013).

3.2 Research questions

1. What do adolescents report the causes of their anxieties are during the empowerment process? (Qualitative)
2. What school based support mechanisms will adolescents suggest needing to manage their anxiety during the empowerment process? (Qualitative)
3. Will students report a change in need satisfaction following the empowerment process (i.e. does the process satisfy needs)? (Quantitative and qualitative)

Hypothesis 1: It is hypothesised that students will report an increase in need satisfaction when those needs are nurtured through an empowerment process.

4. Will the process of empowerment (applying SDT) reduce adolescents' anxiety and improve general wellbeing? (Quantitative and qualitative)

Hypothesis 2: It is hypothesised that adolescents will report a reduction in anxiety and improvement in wellbeing following an empowerment process.

3.3 Ontology and epistemology

Matthews (2003) defines ontology as the way in which one views reality. The ontological position of this research is rooted in realism. According to Robson (2002), realism approaches research by proposing that there is a real world to study, but that there are mechanisms (i.e. potential causes) that lead to an outcome in specific contexts. For example, Robson (2002) uses the analogy of gun powder exploding when touched by a flame. He argues that the powder will explode but only under certain conditions. It will not ignite if the powder is wet, no oxygen is present, or the mixture is incorrect. From a realist perspective, this illustrates how the explosion outcome is achieved when the mechanism (i.e. the appropriate mixture of chemicals) is combined with action (i.e. the flame) but only in certain contexts/conditions (e.g. dry mixture) (Robson, 2002). Realists see knowledge as a social product that is influenced by time, culture, politics and a particular situation (Robson, 2002). For example, the current research is interested in finding out YP's understanding of their anxiety at this particular time and place. A local survey (anonymous local authority, 2014 and 2015-16) indicated that YP in this area are less happy than other YP across the country, thus presenting a need to find out their reality. In a wider, national context a change in wellbeing has been observed over time. For example, in England Collishaw et al. (2010)

found that twice as many YP in 2006 reported experiencing regular feelings of depression or anxiety compared to the 1986 cohort. This suggests that a cultural and/or political change may have contributed to these findings.

Whereas an ontology presents a view of reality, an epistemology has been described as “.....how knowledge is created”(Matthews, 2003, p. 60); therefore, the epistemology is informed by the ontology and it has methodological implications (Moore (2005). In regards the epistemology of a realist, this means that knowledge is created through the identification of “....causal processes by investigating the different circumstances in which they are produced” (Matthews, 2003, p. 63). The underlying causal mechanisms are examined in a real world context where open and complex systems operate (Matthews, 2003). When studying an intervention, realists may not simply want to know if a programme is effective but might ask questions about what makes the programme effective for some people in some contexts (Matthews, 2003) or what mechanisms may be blocking its effectiveness (Robson, 2002). The current research will aim to do just that by investigating the mechanisms contributing to YP’s anxiety. This was done through the use of focus groups whereby YP discuss possible causes of their anxiety, thus allowing them to use an understanding of those mechanisms to inform school based support strategies to manage their anxiety. In essence, the YP will be discussing mechanisms within their school system that impact their wellbeing. In the qualitative follow-up questionnaire they will also feedback on the mechanisms supporting and blocking the effectiveness of this intervention (e.g. the final question that asks what could have made the experience in the research better for the participant).

3.4 Purpose of the research

In section 1.9, the theoretical justification for empowerment research is presented; however, there is also a moral rationale that links to the ontology and epistemology of the research. Robson (2002) notes that realism can incorporate aspects of emancipatory research by taking note of the participants’ perspectives; it examines the experiences of people who have traditionally been marginalised. In this research, that group of people is YP with anxiety. This is relevant to the local context because a local survey reported that as children became older (e.g. year 8, 10 and 12) the percentage of students believing that their schools care if they are happy decreased by as much as 32% (anonymous local authority, 2015-16). However, the process in the current research hoped to enable anxious participants to motivate schools to show they care about student wellbeing and value their participation. The

purpose of emancipatory research is to create opportunities to take part in social action (Robson, 2002) and this research aims to do that by presenting an opportunity for anxious YP to inform and change school policy/procedures to better support their wellbeing. Additionally, this research seeks to investigate the impact of the empowerment process, thus it has an evaluative purpose as well.

When thinking about the purpose of the research, there were different influencing factors that led to the decision of how the emancipatory research was planned/completed. McIntyre (2008) describes participatory action research (PAR) as a process which involves collaborative participation between the participants and researcher where knowledge is co-constructed and critical awareness is promoted to produce social, collective and/or individual change. This definition largely describes what this research hoped to do (i.e. learn with participants about their experiences and views, critically examine those experiences and work with them to support the kind of change they wanted to see in the school). As Chevelier and Buckles (2013) explain, PAR places an emphasis on doing research with people, not on them or for them. This value influenced the decision to recognise and formally label the participants as co-researchers and give them certificates for their work. In PAR the research is tailored to the goals and desires of the participants; the participants develop actions in the process, which may include making recommendations to a government body (McIntyre, 2008), but in this research it was feeding back to the schools' management team. The current study might be criticised for not involving the students earlier in the process, as the research questions and overarching goal was decided by the researcher while the students may have wanted to answer different questions or set alternative goals. However, considering the practicalities of doing research within a professional doctorate course, this would have created a much bigger project that may not have been feasible bearing in mind the allotted time frame and school priorities (e.g. How much time will they permit the researcher to take students out of class?). Plus, PAR can tend to focus on solving practical problems (Chevelier & Buckles, 2013) and if the participants were engaging in things like doing background research and creating research questions, then this may have led to too many questions that then adversely affects the success of problem solving. By reducing the chances of success, there is a danger that the need for competence would be undermined, rather than developed, and lead to disempowerment. McIntyre (2008) highlights that an effort should be made to reduce barriers between participants and the research and this can include ensuring that the language used is understood by participants. The researcher felt this was important;

therefore, she decided to ask young people known to her to provide feedback on the clarity and presentation of language used within the questionnaires, which led to adaptations. However, the actual participants would have provided the most accurate and useful feedback, but discussion within the group on the matter may have influenced them to respond differently, possibly in a biased way (e.g. changing what they would have said based on what a peer said), which meant that the researcher chose to avoid this. At the same time, the researcher and participants worked together throughout the intervention to plan, implement, and establish a process for disseminating information developed in the project (e.g. the researcher helped to stimulate ideas and the group ultimately decided what would happen).

3.5 Participants

The population that prompted the research was adolescents aged 14 – 18 in school who self-report to be anxious (as indicated in The Screen for Child Anxiety Related Emotional Disorders-Revised (SCARED-R – see appendix B). Over half of mental health problems in adult life (excluding dementia) start by the age of 14 and seventy-five per cent by age 18 (Department of Health, 2015), thus the researcher's interest in the selected age range. Adolescents in this one local authority are of particular interest due to observations in the local EPS noting a rise in adolescent referrals for anxiety related reasons and due to two local surveys indicating a need to address wellbeing (Anonymous local authority, 2014 and 2015-16).

The sampling method used was volunteer sampling because this research aims promote empowerment through the application of SDT to support need fulfilment and research has shown that trying to pressure someone to do something hinders the fulfilment of the need for autonomy (Grolnick & Ryan, 1987; Kage & Namiki, 1990; Pelletier et al., 2002; Roth et al., 2007; Ryan & Brown, 2005). Additionally, this is an ethical and appropriate method to use when working with a vulnerable sample, as pressure to participate could exacerbate feelings of anxiety. Two schools (one upper and one secondary) volunteered to take part in the research.

One school is in a more affluent area, one is in a more deprived area (Anonymous local authority, 2016), thus providing a relatively representative sample of the population that has prompted the research. Conversely, a disadvantage is that the findings could be very different depending upon the context/school and that information is missed when participants' data is merged together. A more homogenous sample could provide greater

insight into the mechanisms at work within a system that affect the participants, yet this research was meant to address a local need and the exclusion of a participating school on the basis that it is different would mean that the findings would only recognise the voices of children from one type of school. If that was the case, then the research would be limited to focusing on a specific set of children within the locality rather than attempting to get a larger picture of the children in the geographical area identified for this research.

Consenting students (with consenting parents) completed the SCARED-R in school during a Personal, Social and Health Education (PSHE) lesson. The researcher identified students who met the inclusion criterion for participation (i.e. those scoring at or above the 10% cut off scores for the anxiety disorders specified on the SCARED-R - social phobia, generalised anxiety disorder, etc). For safeguarding reasons, this was followed by a consultation with school staff to see which students would be able to cope with the focus group. Two students were excluded for this reason, as the pastoral support felt that the group context might be too much for them to manage and adversely affect their wellbeing. The remaining students were asked if they would like to participate in a focus group to help them understand and discuss more about the topic of worry and develop ideas for support strategies to manage worries in school. The term 'worry' was used for two reasons. As discussed in section 1.2, anxiety can be conceptualised as a continuum, at one end worries are normal and sometimes even helpful but the 'worry cycle', as termed by Babior and Goldman (2008), can lead to extreme anxiety. Consequently, as 'worry' has different meanings along the continuum and because it presents as a less intimidating word (compared to anxiety), this term was used with the students. However, in this paper the terms will be used interchangeably because the participants discussed both lower and higher level worries along the anxiety continuum.

The research aimed to recruit enough students for four focus groups, one group of eight from year 9 and 10 and one from year 11 and 6th form in each of the schools (n=32). However, due to issues across settings (e.g. lack of parental consent forms in one school, chasing consent forms, absences, students not wanting to miss exams, lessons or trips), the groups were as follows: school one = one group of two; school two = two groups of four and one group of three (n=13). The consent forms and SCARED-R measures were completed in the summer term of 2016, but due to administrative and practical issues the intervention was not delivered until the following term, which meant that year 9s were not included in the sample. There was one year 12 participant meeting the inclusion criterion, but she decided not take part in the focus group; hence, the sample was made up of participants from year 10, 11 and

13. According to AI-therapy statistics online (2016), a minimum of 27 participants was needed for statistical power with a medium effect size of .5 using a Cohen D's calculator; however, too few participants were recruited for statistical power.

3.6 Design

The purpose of this evaluative, sequential, mixed methods design was to gain insight into YP's views on the potential causes of their anxiety/worries and useful support strategies as well as to triangulate qualitative and quantitative data measuring the impact of the empowerment process. Both types of data are seen as equally important, as the quantitative will measure the magnitude of the impact while the qualitative will give insight into the subjective experiences of the process, thus providing a more holistic view of the impact of the empowerment process. The first phase (pre-intervention) will quantitatively gather information about baseline levels of worry/anxiety, need fulfilment and wellbeing (research questions (RQ) 3 and 4) to later measure changes in the three key dependent variables and see if cut off scores for anxiety (indicated by the SCARED-R) are reduced to lower levels of worry on the anxiety continuum after the intervention. The measures (see appendix B, C, D) used are as follows:

1. SCARED-R (Muris, Merckelbach, Schmidt & Mayer, 1999a)
2. Basic Psychological Needs Scale in General – BPNS-G (Gagne, 2003)
3. Ryff Scales of Psychological Well-Being (Ryff, 1989)

(NB: justification for the use of these tools can be found in section 3.8.1 – Quantitative tools)

The SCARED-R was a screener used to identify the sample of interest (i.e. inclusion criterion) and was administered by teachers to all students aged 14-18 where informed consent was given by the teachers, students and their parents. Once the appropriate participants were identified in consultation with the school, the BPNS-G and Ryff Scales were administered by the researcher in a pre-focus group meeting for consenting participants.

The second phase was a qualitative exploration of perceived causes of worry/anxiety and suggested support strategies as identified by participants who volunteered to take part in a focus group (RQ 1 and 2). This phase also served as part of the empowerment intervention and was used to inform changes in school policy/procedures/provision that was subsequently

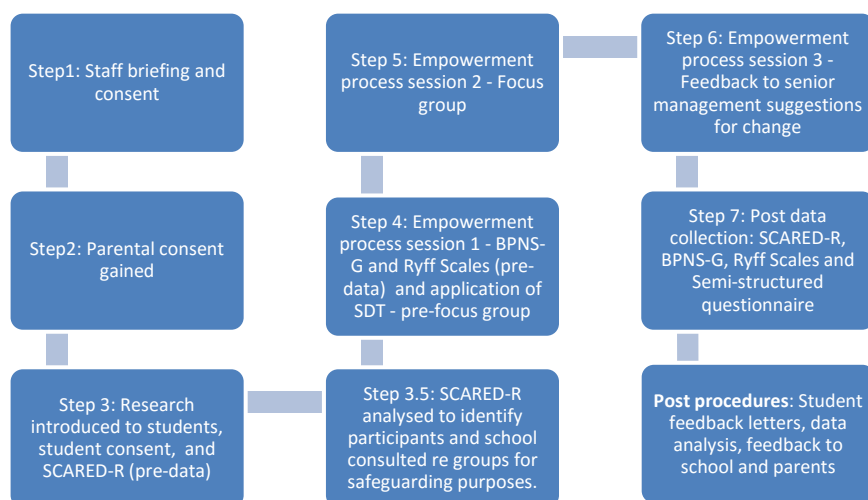
fed back to senior management. Details of the empowerment process are explained in the procedures section.

The third phase (post-intervention) involved the re-administration of the SCARED-R, BPNS-G and Ryff Scales to the participants in order to measure quantitative changes in the variables of interest (RQ 3 and 4) while the final phase (post-intervention) qualitatively measured those changes through open ended questions answered by participants on questionnaires (see Appendix G3) (RQ 3 and 4).

3.7 Procedure

The intention of this section is to provide enough detail about the intervention to allow for a clear understanding of what happened and to allow for replication of the procedures. Providing this level of detail creates a lengthy section; therefore, it has been broken into steps. Prior to the steps, there were discussions with Special Educational Needs and Disabilities Coordinators (SENDCOs) to seek interest in the research and agree on expectations (see Appendix P).

Figure 3.1: A Flowchart to Graphically Display Procedural Steps



Step 1 – School staff understanding of the research and consent

Three schools volunteered to take part in this research; however, due to a lack of parental consent forms in one school only two participated. A staff briefing (approximately one hour) took place in each school to explain the purpose and procedures of the research that enabled informed consent. As teachers were to deliver the wellbeing session where they administer the SCARED-R and introduce the research to the students, a written teacher guide (see Appendix E) was provided to help the teachers remember what to do and to adhere to ethical procedures. In the briefing teachers were consulted about the content of the wellbeing lesson as well as the clarity of written communication provided to parents and students. Two schools do not have a regular PSHE curriculum; therefore, the researcher provided some resources as options for the schools to use. These included problem solving scenarios based on frequently occurring worries of adolescents as reported by the anonymous local authority (2014) (see Appendix F). For equality purposes, this resource was also offered to the other participating school. At the briefing a proposed date of a PSHE lesson discussing wellbeing was explored, yet this had to be confirmed pending the return of parent consent forms. An additional purpose of this meeting was to equip the consenting/participating teachers with enough knowledge to answer young people's questions when they present the information and consent forms to them. Teachers were told that if there were any questions they could not answer on the day, then they could give the YP with questions the opportunity to wait for a response from the researcher before they make their decision about consenting. Teachers were given information and consent forms (see appendix H) to sign at the end of the briefing if they wanted to participate. They were also told that they could take the form away and think about it first. This was done to prevent any discomfort they might experience by declining to participate in front of the researcher.

Step 2 – Consent from parents

Prior to the PSHE lesson, an information and consent form (see appendix I) was sent to the parents of YP with teachers that consented to participate. Consent was sought from parents of YP 16 and older as well due to the sensitive nature of the research. Although the British Psychological Society (BPS) (2010) recognise that most YP who are 16+ can give consent for themselves, section 10.1 of the BPS Code of Human Research Ethics explains that special safeguards need to be put in place for vulnerable participants. Anxious YP may be considered vulnerable and by gaining parental consent, parents have an understanding of

what their child is doing in the research; therefore, they are in better/more prepared position to support them if need be. A wellbeing and health support services list was included with the forms to signpost parents to any additional services they may want to access (see appendix J – NB: parents and teachers contributed to the adaptation of the list to make it more easily accessible for parents and a similar list was given to pupils).

Step 3 – Consent from young people and anxiety questionnaire/pre-data collection

At the end of a PSHE lesson on wellbeing, staff read out the information and consent forms to introduce the research, ensure that the consent form had been read and ensure that opportunities for asking questions were given before signing. In the lesson the teacher talked about worries as being a normal part of being a teenager and explained that this research will aim to find out more about teenage worries and how to support them. This was done in an effort to be transparent about the purpose of the focus group while also normalising worries so that peers did not see participants as any different. Students were given the information and consent form (see appendix K) to return to the teacher as they left the lesson (signed or unsigned).

Prior to this session, the SCARED-R was adapted in an effort to make it more accessible to a range of students with different needs and in response to feedback from a young person with clinical levels of anxiety who is known to the researcher (see more detailed discussion on adaptations in section 3.8.1 Quantitative tools). All students were given the SCARED-R checklist along with a teacher created activity (i.e. for those who did not want to consent or whose parents did not consent). This was done so that others in the class could not identify those who chose to participate or to identify those whose parents did not consent. This means that all students were busy writing something at the same time in a room where the desks were separated so that no one could see what they were writing. The teacher instructed them to use a folder to cover what they were writing as well. As they left the lesson, everyone turned in the papers they had been given (including the SCARED-R), some of which may not have been completed. As everyone was submitting something and others were not able to see it, their privacy was protected. Any student who completed a SCARED-R form without parental consent (i.e. even those over 16 due to the sensitive nature of the research) had their form destroyed without analysis. As students left the lesson, all were given a letter to take home listing the wellbeing/mental health support services available within the county should they want to access those services (see appendix L for student version).

After the analysis of the SCARED-R and consultation with the school about who would be able to cope with the pressures of a focus group (i.e. safeguarding reasons), the students were invited to volunteer for the focus group and eventually feedback to management regarding their ideas for support.

Step 4 – beginning the empowerment process and more pre data collection (meeting prior to the focus group)

Prior to the focus group, the researcher met with the groups for approximately an hour to introduce herself, have participants complete the Ryff Scales and BPNS-G, explain the purpose of the group, ask the group to make decisions about the group (e.g. when it takes place), give the focus group questions (see appendix N) to be answered and give participants an opportunity to ask questions. The application of SDT began in this meeting. Similar to the research in the literature review (e.g. Burton et al., 2006; Grolnick & Ryan, 1987; Joussemet et al., 2004; Savard et al., 2013; Sheldon et al., 2002), standardised instructions (see appendix M) were created to support the validity and reliability of the findings across the groups and were created based on previous research, which indicated certain strategies (e.g. non-controlling language and messages that convey empathy, give and support choices, explain growth and community related rationales for the task, etc) that operationalise autonomy support to nurture autonomy, competence and relatedness (Black & Deci, 2000; Grolnick & Ryan, 1987; Joussemet et al., 2004; Koestner et al., 1984; Kusurkar et al., 2011; Niemiec & Ryan, 2009; Reeve et al., 2004; Savard et al., 2013; Wang et al., 2013). However, it should be noted that, like Sheldon et al. (2002), the instructions were used as a guide and not read verbatim in order to create a more fluid, relaxed meeting.

According to Niemiec and Ryan (2009) autonomy can be supported by providing choices, giving meaningful explanations for why a task is useful and by valuing student voice. Competence was supported by allowing students to choose a means for sharing their views and by giving them the questions to explore in advance, as this provided them with scaffolding to effectively engage in the group (Niemiec & Ryan, 2009). Furthermore, it was hoped that the common goals of the group would support relatedness (Sheriff, 1958). Niemiec and Ryan (2009) explain that relatedness can be engendered when students feel liked and respected; therefore, the researcher presented as friendly and interested. Deci and Ryan (2000) report that external rewards can undermine intrinsic motivation and have

negative effects on problem solving and creativity; therefore, no incentives (e.g. sweets or money) were offered to entice students into participating.

Step 5 – the focus group (1.5 hours)– 2nd part of empowerment process

The questions for the focus group were originally developed from the first two research questions. These were then taken to the researchers' peer supervision whereby the EPs in her service helped to refine the questions. The focus group was structured using Robson's (2002) guidance on focus groups, which starts with introductions and warm-up questions (i.e. easy questions) to put the group at ease. Warm up questions involved finding similarities with their peers in the group in an effort to support relatedness and this led into a co-construction of ground rules for the group. This was followed by the first set of focus questions (i.e. understanding causes of worry/anxiety), then a 10 minute break, next the second set of questions (i.e. support strategies and how to feedback to management) and then finished with cool-off questions to diffuse any tensions that may have developed (e.g. what are they looking forward to this weekend). Discussions were recorded for reflective and reflexive reasons but key points and suggestions were developed and recorded in a method chosen by the students in their own words (e.g. bullet points and mind maps on flip chart paper). The time and mode for feeding back to senior management was determined by the students in the focus group to support their need for autonomy and students were offered help from the researcher in feeding back in order to provide scaffolding to nurture the need for competence.

Using focus groups with anxious adolescents can present a number of ethical dilemmas. For example, talking about worries may exacerbate the anxieties of individuals within the group, participants could become upset and feel embarrassed, someone may share something another said outside of the group that an individual wanted to keep private, or one participant may feel dominated by others in the group and be fearful of talking. As a result, a number of steps were put in place to protect participants during the focus group (see section 3.9.5). To ensure the participation of all participants, the researcher used certain helpful strategies, such as building rapport individually and as a group (e.g. asking about interests and doing an activity to identify commonalities between all group members) to set participants at ease. It was made clear that participation was voluntary, yet the researcher sometimes posed a question to the group (e.g. what helps you to relax) and looked at each participant to invite them to speak but not pressure them with a direct question. Opinions and experiences, rather facts, were sought to reduce the fear of not knowing an answer, yet it was also recognised that it was

okay to not know what one might think or feel at that moment and ‘I don’t know’ was an acceptable response that could change with further discussion. Also, when a student may have been speaking quite a bit more than the others, the researcher would use phrases/questions such as, “That is really interesting. What do other people in the group think? Have you had similar or different experiences?”, to provide opportunities for others to contribute.

Step 6 – Students feedback to staff to inform possible policy change and/or school provision to support student wellbeing

In all groups, students decided to give face to face feedback with one member of the senior leadership team and this was facilitated by the researcher. The researcher checked to make sure that the senior managers who volunteered to attend the feedback session were aware of their role, which prompted an e-mail outlining this and inviting them for further discussion if needed (see appendix Q). The closure of the session included thanking participants and giving them a ‘co-researcher’ certificate (see appendix O) to help them feel valued by the researcher, as Niemiec and Ryan (2009) report that feeling valued is a means for supporting relatedness.

Step 7 – Students will complete post measurements

After the feedback session, students were asked to complete the quantitative post measures and the semi-structured questionnaire (NB: Prior to this step, three YP known to the researcher were consulted to inform adaptations to the questionnaire to make it more accessible— see a more detailed discussion on this in section 3.8.3 Qualitative tools and analysis). The reason for collecting the data at this time was pragmatic (i.e. collect the data after the intervention is complete while all the students are present). It also allows for the immediate measurement of change after the final step of the intervention/empowerment process has been completed, thus reducing the chances of other variables (e.g. a school trip the following day) affecting their responses.

3.8 Data collection

Like Standage (2013), the author notes a dearth of mixed methods research within SDT literature. By using both qualitative and quantitative methods the weaknesses of each are complemented by the strengths of the other. For example, according to Coolican (2009) qualitative data is more subjective and less reliable but higher in ecological validity while

quantitative data is more objective and reliable but more artificial. For example, the qualitative data in this research describes every day experiences and emotions of the participants (i.e. ecologically valid) but is likely to change over time and between participants (i.e. subjective and less reliable). On the other hand, the quantitative data in this research requires participants to rate the same specific, pre-determined statements (i.e. artificial), yet the standardised statements and rating scales allow for comparisons of observable/quantifiable change in the same questions (i.e. objectivity). Furthermore, tools like the SCARED-R were created using large samples that consistently show differences in worries/anxieties amongst different groups (e.g. gender, age, cut off levels for anxiety), thus may be considered more reliable and reflective of the general population (i.e. population validity). A mixed methods approach is appropriate because it reflects the overarching ontology of the research. Robson (2002) notes that realists believe that there is a real world to study (i.e. quantifiable, observable phenomenon) but that knowledge is a social product which is influenced by time, culture, politics and a particular situation, thus making the qualitative data important to understanding the participants' reality in this research. While the quantitative data provides some information about the magnitude of the impact of the intervention on key variables, the qualitative data helped to show what that impact means in participants' lives. The qualitative data importantly created a richer picture of YPs experiences and story of their perceptions of the empowerment process, which is not restricted by the pre-set questions of the standardised measures being used. Additionally, the use of both methods functions to triangulate the evidence, which adds to the validity of the findings (Brain, 2002). As the participants had many questions to answer, half of the students answered the questionnaires in the reverse order to reduce the impact of order effects on the dependent variables; this technique is called counterbalancing (Coolican, 2009). Order effects can lead to invalid conclusions when analysing the findings because any changes found could inaccurately be attributed to the independent variable rather than the order tasks were completed (Coolican, 2009). For example, participants might report lower wellbeing scores because they are tired from answering so many questions; hence, counterbalancing can help to improve the validity of the findings.

The following two sections will discuss the quantitative and qualitative tools and techniques used in this research.

3.8.1 Quantitative tools

SCARED-R

The SCARED-R was chosen because it has been standardised using the age range of the target sample and demonstrates good reliability and validity. Appropriate internal reliability has been demonstrated for the majority of the scales (i.e. Cronbach's alphas mostly above .70) and shown good test-retest reliability with correlations of .81 for the overall scores (Muris et al., 1999a and Muris, Merckelbach, Schmidt & Mayer, 1999b). A reliability coefficient of at least .70 is typically considered to be acceptable (Loewenthal, 2001; Ponterotto, 1996). There is evidence to show that there is good concurrent validity between the SCARED-R and a variety of other anxiety measures (Muris, Merckelbach, Schmidt, Mayer, Van Brakel, Thissen, Moulaert & Gadet, 1998; Muris, Schmidt & Merckelbach, 2000; Muris & Steerneman, 2001). It provides 10% cut off scores for anxiety related disorders to indicate a higher frequency of anxiety symptoms compared with other YP of their age and gender. This is helpful because it serves as a consistent means for identifying participants (through self-report) who are higher on the anxiety continuum, thus part of the population of interest for this research. Practically, it comes as a photocopyable portfolio (Fredrickson & Dunsmuir, 2009) and the administration does not require higher level training, thus making it economical.

Some adaptations were made to the screener to make it more accessible to a diverse population (see Appendix B). For example, pictures were added to provide visual supports for the response options (always, sometimes and never) and simpler synonyms replaced two words (i.e. 'aversive' was changed to 'unpleasant' and 'unbidden' was changed to 'unwanted'). To make the questionnaire less frightening to YP, the title of the measure was changed to 'Worries Questionnaire'. A young person with clinical levels of anxiety who is known to the author kindly reviewed the adaptations. He said that he liked the presentation and language used because he felt that it helped to normalise worries and appeared less frightening, whereas questionnaires he had completed from the NHS had always made him feel like there was something wrong with him. He suggested that the introduction to the questions should specifically state that individual responses will not be shared with anyone but overall findings from the group would be reported. He said that if he was taking the questionnaire, this adaptation would avoid making him worry that someone else was going to

see his private answers; thus, it was added. This tool helped to answer RQ4 by measuring changes in levels of anxiety reported by participants following the intervention.

BPNS-G

To measure need fulfilment the BPNS-G will be used because this questionnaire is specifically designed to measure need satisfaction as outlined by SDT (Gagne, 2003) and is an adapted version of a work specific context created in part by one of the original SDT authors (Ilardi, Leone & Kasser, 1993), thus providing content validity. The internal consistency of the overall score has been found to range from .84-.90 (Gagne, 2003; Meyer, Enstrom, Harstveit, Bowles & Beevers, 2007; Vansteenkiste, Lens, Soens & Luyckx, 2006; Wei, Philip, Shaffer, Young & Zakalik, 2005). There has been some research showing a positive correlation with wellbeing and negative correlation with anxiety and depression (Vansteenkiste et al, 2006; Meyer et al., 2007), therefore supporting the validity of SDT's explanation of need satisfaction (i.e. better need satisfaction links to better wellbeing). Another advantage of using this measure is that it is easily accessible, as it is downloadable from the SDT.org website (SDT online, 2016) for free after registering with the organisation. However, to make the measure more child friendly pictures were added to illustrate the response scale and the questions were placed in a grid to make it easier to indicate and see which response was paired to each question (see appendix C). This tool helped to answer RQ3 in order to measure changes in need fulfilment following the empowerment process.

Ryff Well-being Scales

Four of the six scales were used from the Ryff Well-being Scales (1989): autonomy, mastery of environment, positive relationships and self-acceptance. The first three were used because they align with SDT's three needs and self-acceptance because it reflects the positive affect element of the definition of wellbeing previously described (e.g. question 2: "In general, I feel confident and positive about myself."); together the scales function to measure the whole definition (i.e. Hedonism and Eudaimonia). Additionally, the Ryff Scales were chosen because they have been used in previous SDT research (e.g. Sheldon et al., 2002). Ryff (1989) found the test-retest reliability for the measure to be good (i.e. autonomy, .88; positive relations with others, .83; environmental mastery, .81; self-acceptance, .85) over a six week period. Positive correlations were found between the scales ranging from .25 - .73 and this variation is to be expected, as each subscale is meant to measure a different aspect of wellbeing (Ryff, 1989). This measure was also economical, as the Ryff's office e-mailed the

scales to the author at no cost when requested. Again, this scale was slightly adapted by adding a picture, titling it as a 'wellbeing questionnaire' to transparently indicate what it was measuring and by adding a description of the ratings after each question in order to avoid confusion and improve the validity of the findings. For example, if the description of the ratings was only displayed at the beginning, then some students could possibly confuse the ends of the scale (e.g. 1 is strongly disagree but without the visual reminder students may invert the scale in their minds and start selecting 7, meaning strongly agree, when they actually strongly disagree). This tool helped to answer RQ4 to measure changes in wellbeing following the intervention.

3.8.2 Quantitative analysis

As this research is interested in measuring changes in multiple dependent variables (DV) (i.e. anxiety, need fulfilment and wellbeing) in response to the independent variable (IV) (i.e. SDT application/empowerment process), it was intended that a multivariate ANOVA (MANOVA) would be the statistical test used. Doing individual related t-tests for each DV increases the error rate, while a MANOVA reduces the likelihood of a type I error (i.e. falsely concluding that there is a statistical difference due to the IV) because a MANOVA allows for the analysis of all DVs at once (Dancey & Reidy, 2011). However, there were not enough participants recruited for statistical power (see section 3.5); therefore, the data was analysed using descriptive statistics to examine trends in the data without making claims regarding statistical significance. Excel spreadsheets were used to analyse the data and this can be accessed via the disc attached to the thesis.

3.8.3 Qualitative tools

While the quantitative tools served to measure any numerical changes in the DVs, the qualitative tools served two functions: 1. Identified potential causes of worries/anxieties from the perspective of the participants as well as what they think would support their wellbeing and 2. Provided a richer picture of what the research process meant to them. This information was gathered via focus groups and a semi-structured questionnaire.

Focus groups

The description of how the focus group was run is outlined in section 3.7 under step 5. A strength of using this tool is that unlike individual interviews the dynamics of the group helps to focus on the most important issues experienced and it is relatively easy to judge whether or

not the views are consistently shared (Robson, 2002). Plus, students can express themselves in their own words and their comments may be stimulated by the contributions of others in the group (Robson, 2002). However, a limitation is that more dominant members can influence the discussion of the group, but the researcher's attempts to build rapport and relatedness (see procedure section) may have helped to make the participants feel comfortable to share their views, as all contributed ideas in the empowerment process.

At the end of each focus group, the agreed potential causes for anxiety and suggested support strategies written by students were summarised by the researcher to check meaning with the participants. The reason for doing this was to further communicate a value for their input (i.e. relatedness need) and to check the validity/trustworthiness of the themes identified. According to Robson (2002), this (i.e. member checks) helps to reduce the threat of potential researcher bias. Despite this effort, Nightingale and Cromby (2002) state that the researcher will always influence the results because the biases and background of the researcher can influence the way the researcher interacts with participants. To address this, the researcher reflected reflexively, where she examined her own beliefs, behaviours and reactions to others during the research and reviewed the audiotape of the focus groups to examine any self-influence on the participants (Cahill, 2015). As suggested by Mertens (2015), through peer discussions (i.e. discussions in supervision) the author monitored her own beliefs, values and biases during the process. A reflexive account can be found in chapter 5.

Semi-structured questionnaire

In an attempt to produce a relevant and high quality questionnaire, the author followed the questionnaire creation guidelines outlined by Goddard and Villanova (2006). The first step required the author to identify the information needed to answer the research questions. This was done using a table of specifications (Hopkins & Antes, 1978), whereby one column represents the areas of interest (change in anxiety, need fulfilment and wellbeing) and the second column represents the behaviours or characteristics that are representative of each area of interest (see appendix G1). The items in the second column were chosen using the content of the quantitative measures; this helped to focus the qualitative questions and ensure consistency between the measures. This process informed the initial questions and groups of questions. The questions in the quantitative measures reflect the YP's thoughts, feelings and behaviours; therefore, the author felt it was important to divide the questions into these three categories as well in order to examine wider perceived changes in the YPs' lives captured

from open questions. Next, three YP, known through the researcher's friends, were consulted on the clarity and relevance of the questionnaire. Adaptations were made in response to that feedback (e.g. language change, shortening of question 7, an example added to illustrate how question 2 was different from question 1, etc). Finally, to ensure an appropriate reading level, the Gunning FOG index (Byline Media Online, 2016) was used; better/lower scores are calculated when shorter sentences using simple language are used. Calculations showed the questionnaire to be below the suggested score of 7 or 8 (i.e. 4.2); this was seen as an important way to promote accessibility and plan for possible SEN needs prior to the administration of the questionnaire (see appendix G2).

Despite the steps taken to ensure the quality of the questionnaire, there are still limitations to using this tool. Issues such as participant variables may affect the validity of the findings (e.g. misunderstanding questions). Additionally, since the participants are answering the questions individually, the researcher does not have a chance to ask them to elaborate on any interesting comments or clarify responses.

3.8.4 Qualitative Analysis

A thematic analysis of the data gathered from the focus groups (i.e. causes of worries and support suggestions recorded by the groups) was completed to identify themes across the groups. An additional thematic analysis of the semi-structured questionnaire was done after the intervention in an attempt to triangulate the quantitative findings and provide a description of the impact of the intervention on the lives of the YP. The questionnaire asks about any post research changes in their thinking, feeling and behaviour in relation to autonomy, relatedness, competence and worries. This means that changes following the intervention that were not picked up in the quantitative findings of the pre and post standardised measures may be identified when prompted with more open ended questions.

A thematic analysis, opposed to other processes of qualitative analysis such as grounded theory or narrative, was chosen due to the nature of research. For example, when using grounded theory, Willig (2008) explains that the researcher should not approach the data with pre-existing theories or conceptions because the aim of the analysis to develop theories based on the data. This conflicts with the current research, which specifically aims to apply a pre-existing theory to see if there are changes in anxiety, wellbeing and the basic needs outlined by the theory. A narrative analysis would not be appropriate either, as the focus groups and questionnaire do not elicit a detailed enough of an account of an experience to provide the

data necessary for such an analysis (Murray, 2003; Willig, 2008). However, according to Joffe (2012), participant responses from focus groups and open-ended questions on questionnaires provide appropriate data for thematic analyses.

The thematic analysis is appropriate as it links to the epistemology of research because realists see knowledge as a social product that is influenced by time, culture, politics and a particular situation (Robson, 2002); therefore, themes found in relation to their perceived causes of anxiety, ways of supporting wellbeing and the impact of the intervention will help to illustrate the reality of the YP in two upper/secondary schools in a particular authority with lower levels of reported wellbeing (Anonymous Local Authority, 2014 and 2015-16) in England in 2016 during time a political time of austerity.

Braun and Clark (2006) propose that key decisions need to be made to determine the role of theory in relation to the data, starting with the choice to do a theoretical/deductive or inductive thematic analysis. Inductive analysis is described as being driven by the data to develop new insights (similar to grounded theory) while a deductive analysis is guided by the overarching theory and previous research which can influence the development themes (Braun & Clark, 2006). As the current research aims and questions were greatly influenced by theory and previous literature, a deductive analysis was deemed to be appropriate. This influenced the development of themes. For example, the codes generated from the focus groups were examined through an SDT lens whereby reported causes of anxiety could be seen as factors thwarting different types of need fulfilment. With that being said, the researcher repetitively reviewed the data to look for any additional codes or themes that might extend the theory or provide new insights.

Another key decision, according to Braun and Clark (2006) involves choosing the level at which themes are recognised, at a latent or semantic level, and the researcher chose the latter. The semantic method is an explicit approach to analysing the data opposed to a more interpretative stance taken at the latent level. Using a semantic level seemed to align with the ethos (e.g. empowerment) and theory (e.g. nurturing autonomy) of the research, which places greater value on what the students say opposed to an in-depth interpretation by the researcher of the underlying reasons for participants' perceptions. Kellett (2005) argues that in order to have children genuinely engage in research, power must be shared whereby children lead on issues that impact their lives. Furthermore, Kellett (2005, p 9) references 18th century philosophical arguments (Rousseau, 1762) stating, "This philosophical stance argues that the

purity of children's thought is only corrupted by exposure to adult values in an adult world." Analysing the ideas and suggestions provided by the YP at a semantic level upholds this view because their voice is not diluted through too much researcher analysis. At the same time, there is still interpretation involved whereby the researcher examines the importance of patterns in the data and their wider connotations (Patton, 1990). Furthermore, semantic analysis is relevant to this research's ontological approach because Braun and Clark (2006, p.14) highlight how theorising experiences "in a straight forward way" is more reflective of a realist's epistemology because of the assumption that language enables the communication of meaning for the participants.

Braun and Clark's (2006) guidelines (i.e. each step is in italics) for the process of analysis were implemented in the following way:

Table 3.2 Braun and Clark's (2006) Six Steps to Thematic Analysis

Step 1	<i>Becoming acquainted with the data:</i> repeatedly reading to get a feel for data patterns
Step 2	<i>Developing the initial codes:</i> arranging data into meaningful groups
Step 3	<i>Looking for themes:</i> sorting codes to identify possible wider themes
Step 4	<i>Revisiting themes:</i> reviewing the coded data and corresponding themes to see if adaptations are needed (e.g. merging or separation of themes) that result in the production of a thematic map.
Step 5	<i>Explicitly labelling themes:</i> organising extracts under each theme to make meaning of them and tell a coherent story for each
Step 6	<i>Creating the report:</i> Produce an analytical story of the data with supporting evidence from extracts

Firstly, the researcher *became acquainted with the data*, meaning she electronically transcribed the data from the focus groups and questionnaires (NB: data from the focus groups was recorded by participants on flip chart paper in their own words) and read it many times to search for patterns and meaning across the data set. An example of one group's flip chart papers from the focus group can be viewed in appendix S and an example transcript for the semi-structured questionnaire is in appendix T (all data can be accessed via the disc attached to the thesis). *Then initial codes were developed* whereby the data was organised into codes/groups that represented causes of worries and ways of supporting wellbeing for the focus group data. For the data from the semi-structured questionnaire, the data was grouped into different types of change or lack of change in relation to the intervention and any other issues arising. Excerpts of texts were highlighted with different colours to aid the grouping process. All data was coded. Next, the researcher spent time *looking for themes*, which

means that the codes were analysed to identify overarching themes and sub-themes. Closely linked codes informed the overarching themes. For example, with the focus group data different codes could be linked together as thwarting or nurturing different needs. After that *themes were revisited* as excerpts under each theme were re-read to check for consistent relatedness in the data in order to check the validity of each theme and see if a separation in theme or additional theme was needed. For instance, in the analysis of the semi-structured questionnaire, two subthemes regarding participants becoming closer to others were so similar in meaning that they were merged. The coding and themes were discussed with peers and my supervisor to check the reliability and validity of my analysis. Following this, *themes were explicitly labelled* and excerpts from themes were revisited to create a narrative for each theme and to create concise labels that clearly summed the meaning of the themes (see appendix U for an example of this step for the focus group – all steps for each thematic analysis can be viewed on the disc attached to the thesis). The final step involved *creating the report* where the findings were reported in a story that illustrated the students' perceptions of causes of anxiety, suggestions of support and changes experienced by the participants in relation to the intervention as well as any other additional issues. Examples of excerpts were used to evidence the validity of the themes.

Time constraints prevented the researcher from doing a follow-up member check of the thematic analyses, but the researcher felt that the feedback sent to participants could be done in such a way as to not undermine the autonomy of the students. For example, student feedback letters included some examples of exact quotes that they wrote on the semi-structured questionnaire, so as not to communicate that the researcher was imposing her interpretation of what they said by summarising or paraphrasing what was written. Additionally, the researcher asked participants to let her know if there was anything in the feedback letters that they felt was inaccurate or misrepresented their views.

Now that a detailed discussion of the methodology has been presented, the following section will provide greater insight into the ethical context in which the research was conducted.

3.9 Ethics

Following the University of East London's procedures, an ethics proposal for this research was submitted in early 2016 and after several adjustments approval was received in March 2016. Adjustments helped to improve the ethical standard of the research. For example, structured guidelines were created for teachers to follow when giving out the SCARED-R to

students, which better secured their anonymity and privacy in the process, thus protecting participants from experiencing further anxiety/distress as a result of these issues. In order to protect the students, secondary school staff and the researcher, this research addressed the relevant ethical guidelines outlined in the British Psychological Society's (BPS) (2009) and the Health and Care Professions Council's (HCPC) (2012) guidelines in the following ways:

3.9.1. Informed consent

Informed consent was gained from everyone involved, no methods of coercion were used and participants were given the opportunity to withdraw their participation and data up until the completion of the data analysis. School staff had a face to face briefing of the research to ensure that they fully understood it and had an opportunity to ask questions. Additionally, the researcher's e-mail address was given on all of the information forms in the event that they had a question that needs answering at a later date. One parent did contact the researcher with questions regarding her experience and amount of supervision. To ensure young people's understanding, teachers read the forms aloud and allowed time for questions to be asked. Furthermore, young people had the purpose and procedure explained by the researcher in the pre-focus group meeting, where they were reminded that their involvement was completely optional and had another opportunity to ask any questions.

3.9.2 Deception

Deception is not applicable to this research.

3.9.3 Right of withdrawal

Participants were given the opportunity to withdraw their participation on more than one occasion (i.e. with the teacher and researcher). They were also informed that they could withdraw their data up until the completion of the data analysis.

Records of data were kept in a secure place and the data protection procedures of the local authority were followed. Data will be destroyed following the completion of the research.

3.9.4. Anonymity and confidentiality

In the consent forms and in discussions, anonymity was assured in that participants' identities would only be shared with others if there was a safeguarding concern. However, it was clearly stated that the data will be shared with others (e.g. whoever reads the thesis, feedback

to students, staff, families, local authority, etc); thus, confidentiality of what is said was not assured. Although, the findings are presented in a way so that individual students cannot be identified.

Although the SCARED-R questionnaires were distributed and collected by teachers, teachers did not have the scoring key nor did they do any of the analysis; therefore, only the researcher knows the scores for each student. However, parent and student consent forms were accompanied with a flyer signposting local services available if parents or students felt they needed additional support.

At the beginning of the focus group, ground rules were collaboratively constructed and the researcher raised the issue of confidentiality within group. The reason for this was so that they could decide what they wanted to share as individuals and as a group. Additionally, it provided clear boundaries for the group expectations.

The data gathered was stored securely and consent forms explained that the data would be destroyed when the research is completed.

3.9.5 Protection of participants

As self-identified anxious adolescents (i.e. vulnerable young people) made up the participants of this research, certain measures were put in place to protect them; otherwise, insensitive procedures could exacerbate their worries and adversely affect their wellbeing.

- When consent forms were given to students and parents, they were also given a list of wellbeing and mental health support services available within the county. If they felt they would benefit from accessing the services, they had their contact details.
- The ground rules constructed at the beginning of the focus group addressed the issue of sharing sensitive information (e.g. being mindful of what they are happy to share, what they think the group agreement should be around confidentiality, etc) and what they can do if they find the discussion uncomfortable (e.g. choosing not to share is ok, taking a break, speaking to the SENCO, choosing to withdraw, etc).
- Drawing on positive psychology, solution focused questions in the focus group (e.g. What are you already doing to manage any worries that you might have? Are your worries ever helpful?) were used to put the students in a resourceful frame of mind (i.e. thinking of previous success) to help them think positively about what they can do in the future.

- Young people were told that if they become upset during the focus group, they had the option of a break, conversation with a staff member and/or referral to pastoral support. They were also reassured that they do not have to continue to participate if they found the process too upsetting.
- A school staff member was available (e.g. SENDCO or other pastoral member) at the time of the focus group in the event that additional emotional support was needed. However, none of the participants appeared visibly upset or communicated feelings of distress and no one chose to leave the sessions.
- The end of the focus group finished with cool-off questions (e.g. what are you looking forward to this weekend?) to diffuse any tensions that may have developed. The closure included thanking the young people for their contributions.

3.9.6 Protection of the researcher

The researcher did not use any dangerous equipment and did not engage in home visits. All meetings with participants took place within the participating upper/secondary schools, where school staff members were available for support if necessary. Regular supervision meetings with the author's academic and field tutor were used to ensure that the researcher was acting within her level of competency.

3.9.7 Debriefing

Participants were informed of the true nature of the research beforehand in the PSHE lesson and again at the pre-focus group meeting. They had opportunities throughout and at the end of the research to ask any questions. All those involved in the research were explicitly told, verbally and in writing, what will happen with the data gathered. At the date of the final data collection, students were advised of who they can speak to within the school if they feel that they have experienced any distress or concern as a result of participating in the research (i.e. the SENDCO or the researcher) and that additional signposting for support will be provided (e.g. counselling) and discussed with them.

After data analysis and the senior management team announce the changes they are making in the schools, a discussion will take place with the schools to determine the way in which they would prefer to feedback to parents and staff (e.g. newsletter, parents' evening, etc). For the student participants, an individual letter explaining the findings will be sent to them (see appendix R for an example letter) and the researcher will work with schools to arrange a

follow up session with students where senior management confirms the changes they have made based on participants' suggestions.

3.10 Summary

The aim of this chapter was to provide an overview of the theoretical and practical elements of the methodology sitting within a realist framework. Critical consideration of the design, tools, procedures and analysis was discussed to provide methodological and theoretical justifications as well as adhere to appropriate ethical standards. The next chapter outlines the findings and gives an analysis of the data collected.

Chapter 4

4.1 Introduction to the findings

While the previous chapter detailed the methodology of the research, this chapter will present an overview of the findings. A thematic analysis of the student recorded feedback to school management that was created in the focus groups will be discussed first in order to address RQ 1 and 2. This will be followed by the quantitative findings, which are presented through descriptive statistics due to the small sample of participants (discussed in section 3.8.2). The quantitative data helped address RQ 3 and 4, but a thematic analysis of the semi-structured questionnaire was also used to triangulate and extend the quantitative findings. Finally, the qualitative and quantitative data will be combined, which will feed into a summary of the overall findings for the chapter.

4.2 Overview of qualitative findings for research questions 1 and 2

As the research applies SDT and previous research indicates that the quality of SDT need fulfilment can affect wellbeing, a deductive/theoretical thematic analysis was done for both sets of qualitative data gathered (i.e. from the focus groups and semi-structured questionnaire) in order to answer the research questions, but it also considered other arising features in the data. The first data set (i.e. from the focus groups) aimed to answer RQs concerning what self-reported anxious adolescents say cause their worries and what school based support mechanisms they would suggest to support their wellbeing.

A detailed examination of the written points that participants chose to feedback to school management (i.e. generated in the focus groups) informed two main themes and four subthemes for RQ 1 (reported causes) and three main themes with five subthemes for RQ 2

(suggestions for support). Excerpts are used to evidence the themes and the transcription key found in Figure 4.1. explains the symbols used to provide clarity when reading the excerpts. It was found that some excerpts were used more than once under different themes/subthemes because they illustrate the supporting or thwarting of more than one SDT need. To clarify what this looks like, an example with a justification of how the excerpts fit under different subthemes can be found in section 4.3.1. The relationship between research questions, themes and subthemes are illustrated by thematic maps in Figure 4.2 and 4.3 with accompanied explanations following each.

Figure 4.1 Transcription Key

(xx) means that a word or phrase was removed for anonymity purposes

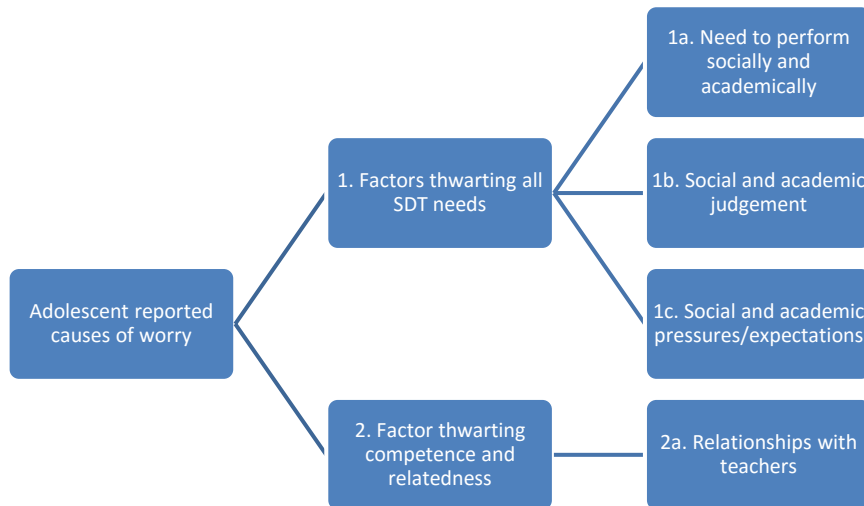
[] square brackets contain the author's words to clarify the context or meaning of a quotation (NB: This occurs frequently due to the format in which points were recorded by participants - e.g. mind maps and bullet points).

(...) means that some words were omitted

4.3 Qualitative findings for RQ 1 (What do adolescents report the causes of their anxieties are during the empowerment process?)

The following thematic map was derived by applying Braun and Clarke's (2006) six steps to completing a thematic analysis to the data gathered from the focus groups.

Figure 4.2 Thematic Map of Adolescent Reported Causes of Worry



4.3.1 Main themes (RQ 1)

The analysis identified that the reported causes of adolescent worries were those that thwarted the fulfilment of SDT's three basic needs. Competence can be described as a need to have an effect on one's environment while autonomy refers to the need to self-organise and engage in activities that are aligned with an individual's sense of self (Deci & Ryan, 2000). Relatedness can be defined as the need to connect to others and have caring, reciprocal relationships (Deci & Ryan, 2000). The causes reported indicated that certain factors thwarted need fulfilment for all three of SDT's basic needs (i.e. excerpts under subthemes 1a-1c suggested need thwarting across all three needs) while excerpts relating to difficult relationships with teachers were linked to thwarting relatedness and competency needs. Some of the comments recorded by groups could be placed under more than one need and subtheme. For example, Group 3 wrote one of the causes of their worry as: "*[things of a] Social [nature make you feel] self-conscious (sic). [You worry about factors like] attractiveness, money, clothes, makeup, stereotypes [and] peer pressure [to do] drugs,*

drinking, fitting in, partys (sic). [This can make you feel] helpless, devalued, [and have a] fear of rejection”

This excerpt illustrates the thwarting of all needs: the thwarting of relatedness is represented in the “fear of rejection”, social competence in the ability to fit in and autonomy in the lack of freedom of choice indicated in the pressure to conform to do things they do not want to do like “drugs, drinking...”. Furthermore, it can be used as evidence for subthemes 1a, 1b and 1c because it seems to suggest: 1a - a need to perform socially (“fitting in”), 1b - feelings of social judgement (“self-conscious”) and 1c - social pressure (“peer pressure”).

Although subthemes 1a (need to perform socially and academically) and 1c (social and academic pressure/expectations) may appear to be the same, they have been separated because pressures/expectations were not always directly linked to performance. For example, Group 2 recorded, “*Stress impacts your life - [school] work [set] over half/end of term increases stress*”, which highlights the impact of pressures/expectations to do school work over a period that is meant to be a break but does not explicitly relate the pressures/expectations to feeling like they need to perform well on the work set.

4.3.1.1 Subtheme 1a: Need to perform socially and academically

A theme emerged around participants being worried due to a need to perform well in a social and academic context in the present as well as the future. This is demonstrated in the following extracts from Group 1:

“[We worry about] School - school work, HW [homework], [and] grades. [We could receive] punishment [for not doing the work or not doing it well]. [We want to] sucseed (sic) to get a good job and please people. Show people you can do it.”

“When people judge you on your opinion or decisions with something you are made to feel like you should change your mind or behaviour. [That leads to] low self-esteem/confidence. [It] feels like your (sic) doing the wrong thing. [It] makes you think [about] how you could stop it.”

4.3.1.2 Subtheme 1b: Social and academic judgement

While a need to perform negatively affected participants, the judgement of others (which overlapped with subtheme 1a – for example see second excerpt under 4.3.1.1) appeared to

cause participants worry and affect the way they acted and felt about themselves. Excerpts from Group 4 depict the impact of perceived social and academic judgement:

Being judged from peers [is a worry because you], don't know who to trust; [you feel] self-conscious [and] paranoid, checking yourself, perceiving something differently [and you] act differently. [You] change to fit in [with] what you think is acceptable of what they want.

Not understanding [classroom] work [is a worry because you have a] fear of being judged (sic) [by] peers and teachers.

4.3.1.3. Subtheme 1c: Social and academic pressure/expectations

Like the judgement of others, social and academic pressures/expectations from a variety of sources (e.g. self, parents, peers, teachers and government) were discussed as causing worry and having a negative impact on emotions. For example, Group 3 said:

"Exams [are] unnatural/artificial [and cause] stress, panic and anxiety. [An exam is a] test of memory. [The] government makes exams harder/more important than necessary."

"[We worry about] UCAS - offers, personal statement, interview, deadlines, grades [and have a] fear of disappointment. [It is] time consuming; [there is] competition for attention, grades with peer (sic). [It] impacts [on our] priorities; [we] want to live up to expectations for us, parents and teachers."

4.3.1.4 Subtheme 2a: Relationships with teachers

Whereas the aforementioned subthemes found worries formed through social and academic factors that thwarted all three SDT needs, a theme emerged specifically around teacher relationships as being important to how they feel and perform. Groups highlighted that their relationships with teachers could cause worry that stymied need fulfilment for relatedness and to a lesser extent competence (i.e. only a portion of one extract indicated that competency was being blocked). For instance, Group 4 said, *"Teachers don't understand your point of view. [Because] you weren't taught properly, [you] can't ask for help."* This quote communicates that the perceived lack of understanding on the part of the teacher creates distance in the relationship (i.e. relatedness need) while not being 'taught properly' means

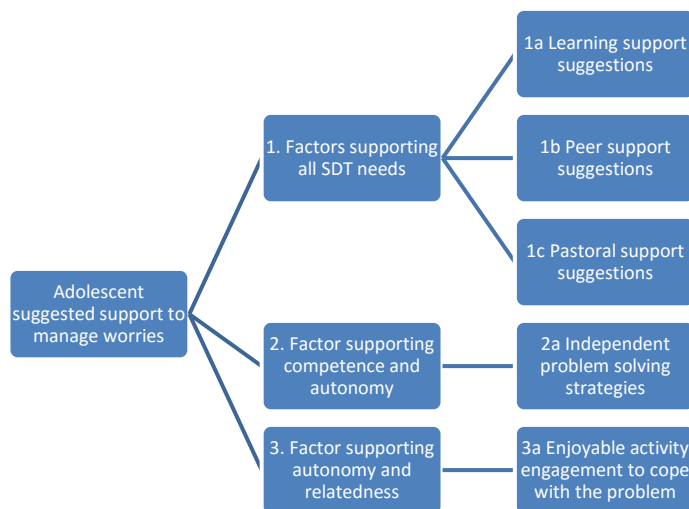
that the necessary scaffolding to nurture competency in learning is missing (i.e. competency thwarted).

While factors thwarting need fulfilment were reported to cause anxiety for adolescents, factors that nurtured need fulfilment were described as helping participants manage worries and were suggested as improvements that could be made in school.

4.3.2 Qualitative findings for RQ 2 (What school based support mechanisms will adolescents suggest needing to manage their anxiety during the empowerment process?)

During the focus groups, students discussed and recorded what they felt would support their wellbeing. The writing produced by the participants was analysed to develop the thematic map in Figure 4.3.

Figure 4.3 Thematic Map of Adolescent Suggested School Based Support Strategies to Manage Worries



4.3.2.1 Main themes (RQ 2)

The thematic analysis uncovered that participants' school based suggestions to improve wellbeing included three factors (i.e. learning, peer and pastoral support) that developed all three SDT needs, one factor (i.e. independent problem solving) that supported their need for

competency and autonomy and one factor (i.e. enjoyable activities) that nurtured relatedness and autonomy.

4.3.2.2 Subthemes 1a-3a: Learning, peer and pastoral support suggestions

Participants identified three main areas that they felt supported them in their management of worries.

- Learning support included teacher help in learning new skills (e.g. Group 1 wrote, “[We would like] school [to] help teach [us] how to learn.”) and meeting individual needs (e.g. Group 3 wrote “[We want] personalised learning (...)”) as well as interests (e.g. Group 1 wrote, “[We would like a] club for every subject - outside of class time, maybe lunch.”).
- While learning support suggestions wanted help from teachers, peer support suggestions included helping others as well as being helped. Peer support suggestions allowed participants to help younger students (e.g. Group 2 wrote, “[The] 6th form [could be] more involved with verticle (sic) tutoring. [Vertical tutoring would be better if there was] more structured help for lower years from us.”), be helped by older peers (e.g. Group 4 wrote, “[We would like to have a] 1 year older peer mentor [who helps us with] school, expectations, friendships.”) and to be recognised without judgement by classmates (e.g. Group 3 wrote, “[In class group work we would like to] celebrate differences [and] allow freedom of speech [in] study groups [so we are] not judged.”). These were all seen as ways in which student wellbeing could be better managed.
- Being mentored by older students was thought to be helpful and would include a type of pastoral support for some, but participants emphasised the importance of having an adult in a pastoral capacity. Their suggestions indicated that participants wanted an understanding adult to talk to about their concerns (e.g. Group 2 wrote, “[We would like a] specialist sixth form support team [and we] always have these at any time to see.”). For students who joined the school later when they entered sixth form, they felt that clearer sign posting was needed to indicate where they could go for help (e.g. Group 2 asked for a “Poster to explain who you can go to if there is a problem”). In the feedback session, senior management explained that this information is covered in induction. However, when transitioning to a new school it is likely that the students

may miss or forget this information when processing the many changes from their old school.

4.3.2.3 Subtheme 2a: Independent problem solving strategies

In contrast to the first three subthemes, independent problem solving nurtured two of the three needs, rather than all of them. Independent problem solving strategies were reported as being useful to manage YP's worries. For example, Group 2 wrote, "[What helps me to deal with worries is to] *write down your feelings and how to solve [the issue]. [You can] deal with the problem yourself to rest your mind.*" These suggestions addressed the need for autonomy by choosing a method to resolve problems on your own and supported competency as the participants had already experienced success in problem solving using these strategies.

4.3.2.4 Subtheme 3a: Enjoyable engagement activity to cope with the problem

While independent problem solving was an active, student led strategy, participants also suggested activities that took their focus away from the problem that could be taking over their thoughts and emotions. Enjoyable activities were seen as a way to avoid worry (e.g. Group 2 wrote, "*Do activities to keep my mind off [the worry]*") and release/change negative emotions associated with worry (e.g. Group 1 wrote, "*[I] go on [my] bike [for] stress relief.*"). These strategies mostly nurtured autonomy because participants freely chose to engage in preferred activities. However, one extract indicated support for relatedness (albeit a dog and not a person), as (s)he wrote, "*[I spend time with my] dog [because it brings me] happiness.*"

4.3.3 Summary of qualitative findings (RQ 1 and 2)

In regards to RQ 1, the findings from the focus group showed that relationships with teachers as well as social and academic factors thwarting need fulfilment were the underlying causes of participants' worries. For RQ 2 the findings showed that factors supporting need fulfilment were viewed as effective ways to manage anxiety, hence suggested to the school as strategies. However, participants suggested adult support strategies twice as much as they did peer support strategies, thus signifying that they viewed adult support as being more crucial for worry management and improvement in wellbeing.

While qualitative data from the focus groups was used to answer RQ 1 and 2, the following sections (4.4 and 4.5) will use both quantitative and qualitative data to answer RQ 3 and 4.

4.4 Overview of quantitative findings (answers RQ 3 and 4 in conjunction with the thematic analysis from the semi-structured questionnaire)

RQ 3. Will students report a change in need satisfaction following the empowerment process (i.e. does the process satisfy needs)?

RQ 4. Will the process of empowerment (applying SDT) reduce adolescents' anxiety and improve general wellbeing?)

In order to investigate the impact of the intervention, three measures for anxiety (SCARED-R), SDT need fulfilment (BPNS-G) and wellbeing (Ryff Scales) were used to measure changes in the three variables before and after the empowerment process. As the number of participants in the research was not sufficient for statistical power, inferential statistics were not used, but descriptive statistics have been presented in the tables and graphs below.

Table 4.1
Overall Mean Changes (and Standard Deviations) for Anxiety, Need Fulfilment and Wellbeing Measurements

Measurement	Pre-mean scores	Post mean scores
SCARED-R	0.79 (.37)	0.73 (.28)
BPNS-G	4.68 (.92)	4.69 (.95)
Ryff Scales	3.77 (.61)	3.72 (.64)

Note. N=13

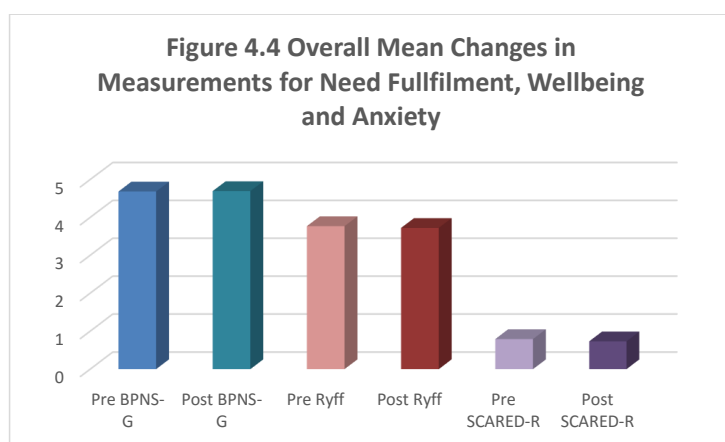
The changes in mean scores for the participants show that there was a decrease in anxiety, an increase in need fulfilment and a decrease in wellbeing total scores when all participants' scores were combined. The largest change out of the three variables can be seen in the decrease of anxiety scores, which is further evidenced in table 4.2.

Table 4.2

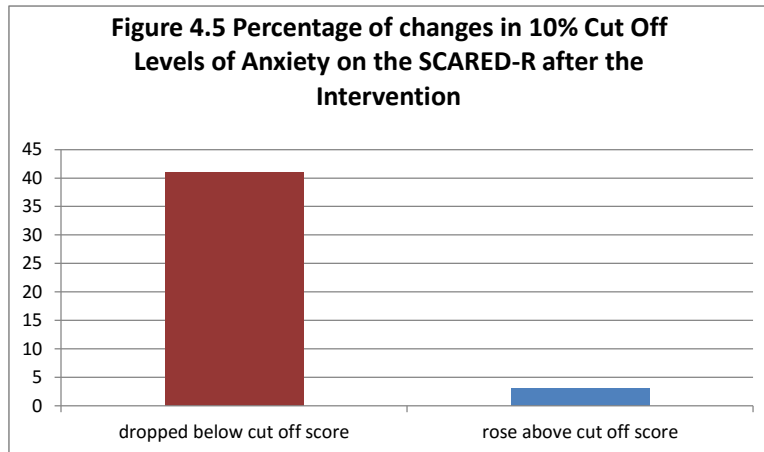
Percentage of Changes in 10% Cut off Levels of Anxiety on the SCARED-R after the Intervention

Percentage of elevated scores dropping below cut off scores post intervention	Percentage of scores rising to or above cut off scores post intervention
41%	3%

The SCARED-R provides 10% cut off scores for symptoms pertaining to anxiety disorders (e.g. social phobia, generalised anxiety disorder, panic disorder, obsessive compulsive disorder, etc) and this indicates that participants report a higher frequency of anxiety related symptoms compared with other YP of their age and gender. Across the participants, 34 of the categories for anxiety disorders were found to be at or above the 10% cut off scores prior to the intervention. Out of those 34, 14 of the scores fell below the cut off points (41%) after the empowerment process while 3 out of 91 rose to or above the cut off points (3%), thus showing a greater decrease in highly elevated anxiety scores across the group. Interestingly, the participants whose scores rose above the cut off points were all younger students (yr 10 or 11).



Changes in the mean scores of the BPNS-G, Ryff and SCARED-R following intervention are displayed in figure 4.4 to visually illustrate the small changes found in the overall scores for each measure (NB: The range for the BPNS-G is 1-7 the Ryff is 1-6 and the SCARED-R is 0-2).



The largest change out of all three dependent variables can be seen in the anxiety scores; however, changes in the other measures were very small and no conclusions regarding significance or change resulting from the intervention can be made for any of the variables. The participants showed a slight increase in need fulfilment and a slight decrease in wellbeing scores. Conversely, different trends (although not significant) in the data became apparent when separating the mean scores of the older students (yr 13) and the younger students (yr 10 and 11) and is illustrated in Table 4.3 and Figure 4.6.

Table 4.3
Mean Changes (and Standard Deviations) for Anxiety, Need Fulfilment and Wellbeing Measures When Older (yr13) and Younger Participant (yr 10&11) Scores are Separated

	N	Pre SCARED-R	Post SCARED-R	Pre BPNS-G	Post PBNS- G	Pre Ryff Scales	Post Ryff Scales
Year 10 and 11	6	0.59 (.34)	0.72 (.30)	5.10 (.98)	4.91 (1.11)	3.98 (.79)	3.82 (.91)
Year 13	7	0.97 (.32)	0.74 (.33)	4.33 (.77)	4.33 (.78)	3.59 (.39)	3.64 (.33)

Data trends for the younger and older cohorts appeared to go in almost opposite direction to each other. Anxiety scores went down for the older and up for the younger while wellbeing scores went up for the older and down for the younger. The need fulfilment scores remained the same for the older group but decreased for the younger. The differences found could

possibly be related to development and experience and this idea will be further explored in the discussion chapter when relating the findings to the literature.

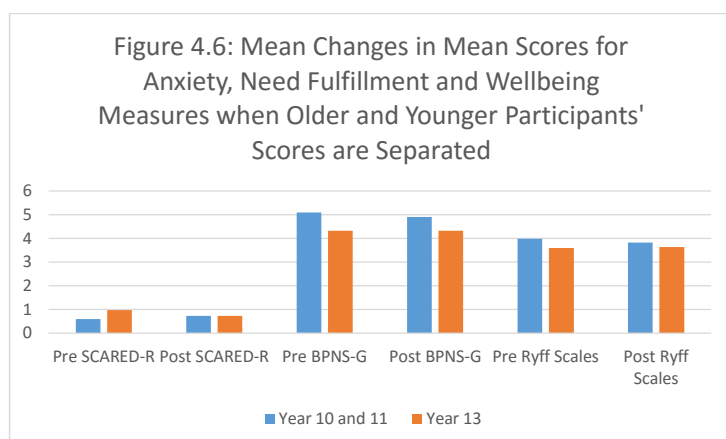


Figure 4.6 illustrates the direction of change for the different cohorts showing mean scores for need fulfilment and wellbeing decreasing for younger participants while wellbeing scores increase and need fulfilment scores remain the same for older students. Likewise, the older participants showed a larger decrease in total anxiety scores. Although, the younger participants started out with higher mean baselines for the Ryff and BPNS-G as well as lower mean for the SCARED-R and this may possibly indicate a developmental trend of wellbeing and need fulfilment declining midway through secondary/upper school and then improving in the later years, but this would require further investigation as conclusions cannot be made from this limited sample (to be discussed further in the next chapter).

The quantitative data, from already established measures, was meant to provide information regarding the direction and magnitude of change within the three key variables after the intervention. The descriptive statistics do not indicate a strong change, and conclusions regarding the significance of the changes cannot be made due to insufficient participants. However, a semi-structured questionnaire was developed as part of this research in order to triangulate the quantitative findings and to explore the meaning of any research related changes in the participants' lives. As a result, the next section will outline the findings from the semi-structured questionnaire and the subsequent section will combine both qualitative and quantitative findings to address RQ 3 and 4.

4.5 Overview of qualitative findings from semi-structured questionnaire (answers RQ3 and 4 in conjunction with the thematic analysis from the semi-structured questionnaire)

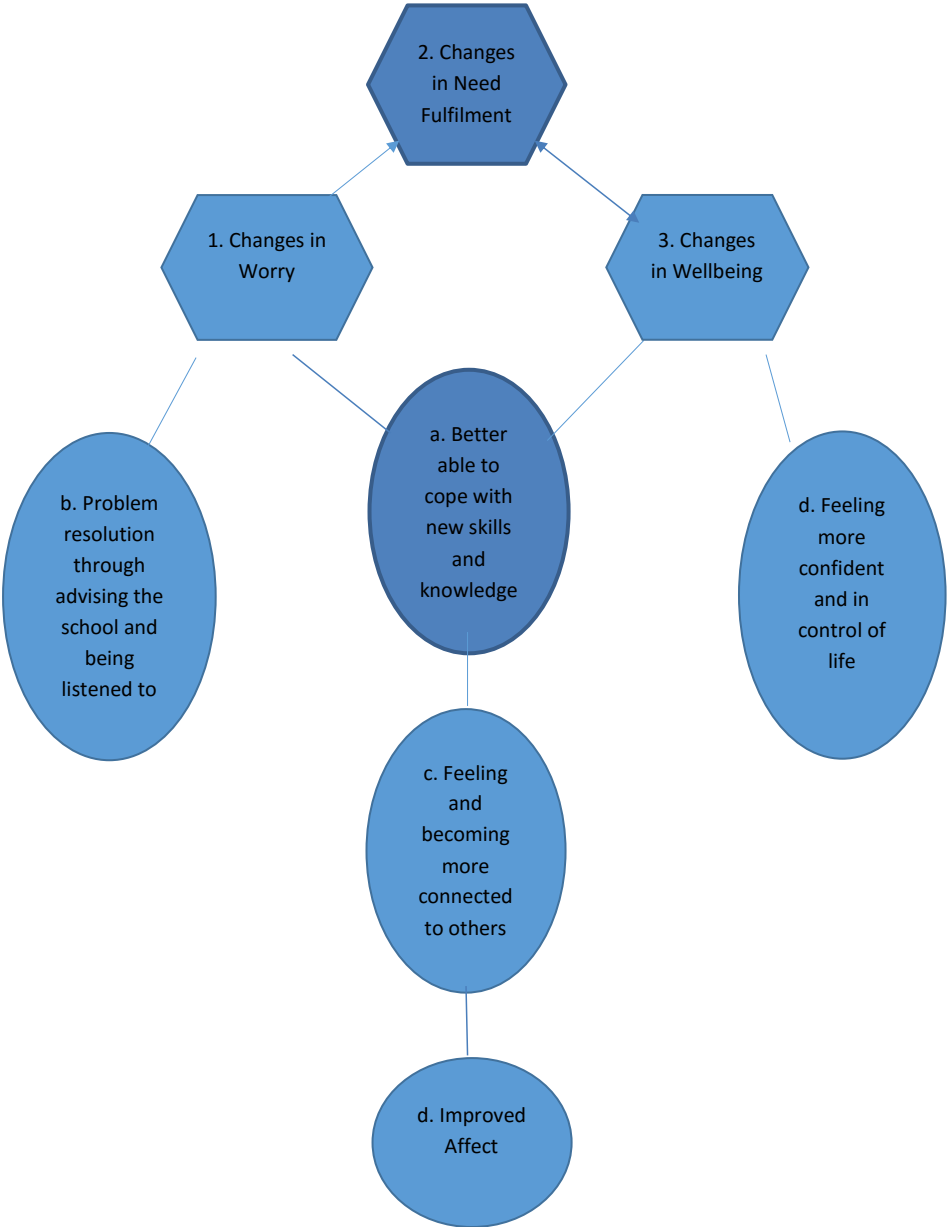
RQ 3. Will students report a change in need satisfaction following the empowerment process (i.e. does the process satisfy needs)?

RQ 4. Will the process of empowerment (applying SDT) reduce adolescents' anxiety and improve general wellbeing?)

In line with the previous thematic analysis discussed in section 4.2, a deductive/theoretical analysis was undertaken using the questionnaire responses. This helped to see if there were any changes in relation to the key variables of interest (i.e. anxiety, need fulfilment, wellbeing) to answer RQ 3 and 4 and if so then what they looked like for the participants. A thematic map can be found in figure 4.7, which depicts the descriptive changes found for each variable/theme. Under the three themes, five subthemes emerged and these overlapped, meaning all subthemes (i.e. changes found) demonstrated changes in need fulfilment while four subthemes depicted changes in worry and four subthemes showed changes in wellbeing.

A handful of extracts were not coded due to misinterpretation of a question by a participant or the written response was limited in that it did not allow for clear coding and further questions to clarify could not be asked due to the tool used (e.g. questionnaires were completed independently by individuals instead of interviews). For example, one question asked if there were any noticeable behavioural changes since doing the research and the second part of the question asked to explain or give examples of any behavioural change(s). One participant interpreted this as two separate, unrelated questions and said there were no noticeable changes and then gave a literal example of changes in behaviour (i.e. "You could be moody then happy or act bad or act good"). Since this response was not related to any actual changes in his behaviour over the course of the research, it was thought to be irrelevant to the data set. Under the question about any changes experienced in thinking about their worries, one participant said that there was no change but then wrote, "I understand the logic and how I exaggerate worries but they are still there" Since 'no change' was indicated, it seems like this could have been something (s)he knew before, but it could also mean that there is no change because the worries are still there; however, the individual now (perhaps, due to the research) understands more about their thinking processes and worries. Since it is unclear and further interpretation would make the results less objective, it was not coded in the last step of the thematic analysis.

Figure 4.7 Thematic Map of Adolescent Reported Changes in Anxiety, Need Fulfilment and Wellbeing



4.5.1 Main themes

The main themes that were found were changes in worry, need fulfilment and wellbeing as the questionnaire was structured to elicit a richer picture of the impact of the intervention in these three areas. The analysis of the semi-structured questionnaire helped to reveal changes that were not captured in the quantitative measures (NB: this will be discussed further in the discussion chapter). Need fulfilment encompassed all of the changes described in the subthemes, which is not surprising when the definition of each is revisited. For example, feeling more able to cope due to new skills and knowledge would indicate improvements in need fulfilment for competence (at the very least) and if one is coping more then it suggests that he/she may be less anxious (worry/anxiety variable), functioning better and feeling well (wellbeing variable).

4.5.1.1 Subtheme a: Better able to cope with new skills and knowledge

Questionnaire responses showed a trend in participants realising that they already had some good coping skills, learned where they could go for support and/or learned new skills to deal with their worries. Some of those skills included acknowledgement and acceptance of worries for what they are without worries taking over thoughts and emotions, logical thinking, calming activities, seeing from different perspectives, etc. Some of their comments demonstrated changes in the other key variables as well. For example, one participant said, *“I’ve started being more organised and going to yoga to chill out.”*

This quote shows that she seems to have developed her organisational and emotional management skills while suggesting that her competence and autonomy (theme 2 - need fulfilment) has been nurtured in having more control over her emotions and being able to freely make decisions that align with her interests and that she is probably more relaxed/less anxious because she can “chill out” (Theme 1 - worry, Theme 3 - wellbeing, subtheme d - improved affect).

4.5.1.2 Subtheme b: Problem resolution through advising the school and being listened to

In contrast to the other themes, this subtheme had the least frequent responses (i.e. 5); however, it signified changes for some in the way that they felt about the school after being listened to and if they thought their ideas were important. At the same time, there was also an

undercurrent of mistrust about whether school management would commit to making changes. The following two quotes illustrate this:

“Yes[I feel my ideas and suggestions are important to other] as Tiffany and (xx) listen to every idea and helped to resolve them.”

“[I feel differently about the school] because they listened to us and suggested ways to change it but we'll have to see if they actually do it.”

4.5.1.3. Subtheme c: feeling and becoming more connected to others

Despite the hint of mistrust in the previous theme, this subtheme uncovered that many of the participants appeared to be changing the way they interacted, felt and/or thought about others, thus indicating improvements in need fulfilment, worry and wellbeing. Although only 38% explicitly said that they felt their relationships had changed (e.g. *“Yes, [my relationships have changed because I'm] closer to other friends, by being more open, trying to be.”*), comments in other sections of the questionnaire illustrated there had been a change in relatedness (total 77%) but was, perhaps, not the way they conceptualised relationship change (e.g. explicit behavioural change in pre-existing relationships). For example, one participant said that her relationships had not changed but then wrote, *“[I now worry less] because there is someone to speak to. (...)Yes,[I feel differently about others because] you see others from different perspectives.”*

4.5.1.4 Subtheme d: improved affect

With participants appearing to be feeling that they are better able to cope, problem solve and become more connected to others, it is unsurprising they reported an improvement in affect. This theme emerged where multiple extracts indicated changes in feeling more relaxed, comfortable and valued, thus showing improvements in worry, wellbeing and need fulfilment (i.e. more valued suggests connection with others - relatedness - and more competent in that they are able to make useful contributions). The following extracts illustrate this:

“[response to the question if participation in the research had affected any other changes in his/her life] Perhaps more positively which is allowing me to feel at more ease than constant anxiety.”

“Its (sic)[the empowerment process] made me feel more important[,] that my views and feelings are important”.

4.5.1.5 Subtheme e: feeling more confident and in control of life

Like improved affect, participants reported changes in feeling more confident in their abilities to manage aspects of their lives and make valuable contributions following the empowerment process. This meant that they started to feel more in control of their lives. The extracts below provide some examples of how the participants experienced this change.

"I feel more in control because I've learnt how to deal with things."

"I don't have to focus on my worries as much therefore I can make my own decisions without a worry taking over my thoughts."

"I am making a difference to school management and helping others."

"I'm more confident after speaking in front of others."

4.5.2 Limitations in the experience of the empowerment process

Despite the qualitative data suggesting many positive changes during the empowerment process, some excerpts indicated areas of weakness. In order not to bias the analysis, the author thought it was important to include these. Firstly, a few comments suggested a lack of confidence in the school. For example, "(...) it made me realise (sic) how dreadful some of my teachers are at behaviour management." Secondly, there were some issues regarding the group dynamics. This is because one participant reported feeling comfortable with size of the group where another felt the group could have been bigger with more varied people and one more person felt it was difficult to fit in the group due to missing a portion of the intervention. Lastly, three participants indicated that the empowerment process would be better if it were longer. For instance, when asked what they thought could have improved their experience in the research two participants said the following:

"had longer time, on more days"

"review session after feedback to see if they changed the things we suggested and the senior teams (sic) opinions on it"

These extracts, although few, are useful in evaluating the process, which will be discussed further in the next chapter after the data is combined and summarised in the subsequent sections of chapter 4.

4.6 Quantitative and qualitative data combined for RQ 3 and 4

As the quantitative data and qualitative data from the questionnaire were meant to complement and triangulate the findings for research questions 3 and 4, this section will combine the data in an aim to answer each.

4.6.1 RQ 3: Will students report a change in need satisfaction following the empowerment process (i.e. does the process satisfy needs)?

Research question 3 asked if there would be a change in need satisfaction following the empowerment process. The BPNS-G found a very small overall mean increase in need fulfilment of approximately .01 and 46% showed an increase in their total scores yet (69%) showed an increase in at least one need after the intervention, thus suggesting that, despite a small increase, changes in total need fulfilment according to the BPNS-G are unlikely to be related to the empowerment process and even if the increase was larger conclusions could not be made due to the lack of participants. Additionally, younger participants' (yr10 and 11) mean need fulfilment scores decreased while older participants' score stayed the same. However, the semi-structured questionnaire included closed and open ended questions. The closed questions showed that 77% reported an improvement in at least one need in response to the direct questions (Questions 8, 10, 12, 14) concerning the three needs while the open ended questions concerning changes in need fulfilment suggest that 100% showed improvements in need fulfilment. Evidence displaying the three participants who did not indicate change in need fulfilment when asked directly can be seen in Table 4.4.

Table 4.4 Qualitative Responses Suggesting Change in Need Fulfilment

Participants who did not answer yes to direct questions concerning need fulfilment	Response	Need Fulfilment
Participant 1	<i>“Yeah, [the way I feel about others has changed because] you see others from different perspectives. (...) [I’ve] change[d] the feelings I have for others.”</i>	Being able to see from others perspectives infers a closer connection to others - relatedness .
Participant 2	<i>“[I’ve changed the way I think about the school because they are] more accepting and thoughtful than I thought.”</i>	This expresses more positive feelings towards the school indicating an improved bond with the school - relatedness .
Participant 3	<i>“[I’ve fewer worries because the research has] made me think about them more rationally (...) (i.e. are they really an issue).”</i> <i>“[I feel differently about myself after research because] its (sic) made me feel more important that my views and feelings are important</i>	The ability to think about worries more rationally is a skill that affords better emotional management - competency in managing emotions. Feeling that one’s views and feelings are important suggests that someone else valued/gave import to those views meaning the listener understood/connected with the speaker - relatedness

Consequently, the findings from the BPNS-G do not show that the intervention led to changes in need fulfilment, but the qualitative data suggests that all participants reported improvements in need fulfilment. The possible reasons for the discrepancy in the findings will be discussed in chapter 5.

4.6.2 RQ 4: Will the process of empowerment (applying SDT) reduce adolescents’ anxiety and improve general wellbeing?

4.6.2.1 Changes in anxiety

While the qualitative and quantitative data for need fulfilment is conflicting, the change in anxiety is more consistent. Overall, the SCARED-R results showed that 77% of the participants had a decrease in anxiety scores and this triangulated nicely with the findings from the questionnaire, which produced the exact same figure. On the SCARED-R there

were a further two participants that did not show an overall decrease in total scores but did drop below the 10% cut off levels of anxiety in at least one category (i.e. general anxiety disorder, specific phobia and post-traumatic stress disorder), meaning that their reported anxiety related symptoms for those disorders reduced enough to place them in the statistically typical range for their age and gender. Similarly, in the questionnaire two additional participants who did not report a decrease in anxiety, did report a change in the way that they think about their worries, which suggests better emotional management (i.e. *"I've learned to just accept some worries."* *"I know how to deal with it [worry] better."*). By including those findings the decreased change in worry is evidenced for 92% of the participants. With that being said, older participants (yr 13) showed a decrease in anxiety scores in the SCARED-R whereas the younger participants (yr 10 and 11) showed an increase, which does not correspond to the qualitative questionnaire (i.e. yr 13 - 71% report a decrease; yr 10&11 - 83% report a decrease; 0% report increase). Hence, like the data for need fulfilment, there is some discrepancy between the qualitative and quantitative findings, which will be discussed later. Nonetheless, both data sets show a decrease in reported anxiety following the intervention and the qualitative analysis indicates anxiety reduction is linked to resolving problems, being able to cope better by gaining new skills and knowledge and feeling and becoming more connected to others through the empowerment process.

4.6.2.1 Changes in wellbeing

In opposition to need fulfilment and anxiety, wellbeing, as measured by the Ryff, was the only variable that showed a slight decline (approximately .04) in the overall mean score for the participants; however, the qualitative and quantitative findings showing that 77% reported a decrease in anxiety, which indicates an decrease in negative affect (one aspect of wellbeing). Furthermore, the questionnaire found that 85% of the participants talked about different improvements in the way they feel (e.g. more confident) while 62% showed increased scores in self-acceptance on the Ryff (scale measuring aspects of positive affect - e.g. *"In general, I feel confident and positive about myself"*). Conversely, wellbeing is not defined as positive affect alone in this research and the ability to function individually as well as with others is another aspect. This is measured by the Ryff's autonomy, environmental mastery and positive relations with other scales, where more participants showed an increase in autonomy (54%) compared with environmental mastery (31%) and positive relations (38%) scores. In the qualitative questionnaire 62% of the participants described a positive change in being able to function alone or with others (e.g. *"I am more organized and*

understand how to help myself more.”). Similar to the other quantitative measures, the younger participants (yr 10&11) showed a decrease in mean scores on the Ryff while the older participants (yr 13) held the same overall mean score. When considering the combined data, there is more evidence showing an increase in reported positive affect but not in wellbeing as a whole.

4.7 Summary of findings

An analysis of the feedback that participants chose to record for senior management showed that the reported causes of their worries (RQ1) were those that thwarted SDT need fulfilment (e.g. social and academic pressures/expectations) while the support strategies they suggested (RQ2) to reduce worry and improve wellbeing were those that nurtured SDT need fulfilment.

As the sample size was too small for statistical power, conclusions regarding the significance of the change in anxiety, need fulfilment and wellbeing following the empowerment process cannot be made. However, the qualitative data appear to suggest overall improvements in anxiety and an aspect of wellbeing, positive affect, (RQ4) but not the comprehensive definition of wellbeing. In relation to need fulfilment (RQ3), the qualitative and quantitative data produce conflicting findings. Furthermore, a trend in the quantitative data may possibly suggest that older participants had better gains across the three key variables compared to younger participants (yr10&11).

The findings and methodology used to produce the results will be critically discussed and related to previous research in the next chapter.

CHAPTER 5: Discussion

5.1 Introduction

This final chapter is an evaluative yet exploratory discussion of the research. It begins by reviewing the research questions and interpreting the findings in light of prior research. This is followed by a reflexive account of the author’s experience in the research and a discussion on the limitations of the methodology used. After this, implications for schools and EP practice are explored and the contributions of this research as well as future recommendations are outlined. Finally, the chapter is then finished with concluding remarks.

5.2 Research questions reviewed

The following four sections will further examine the findings for each research question.

5.2.1 RQ1 reviewed

What do adolescents report the causes of their anxieties are during the empowerment process?

The primary reason for this research question was due to a rise in anxiety related referrals to the EPS and two local surveys that found CYP in one authority reported lower levels of wellbeing in relation to their peers across the country (anonymous local authority, 2014 and 2015-16). Nationally, the Department of Health (2015) reported that over half of mental health problems in adult life (excluding dementia) start by the age of 14 and 75% by age 18 and anxiety is the second most common difficulty for YP, meaning upper school students' anxiety is a pertinent current issue to study, thus the author wanted to know more about YP's worries. Whereby the local surveys' findings were quantitative in nature, the current research attempted to develop a richer understanding of their worries. For example, similar to the 2015-16 survey, the current research found that one of the most frequent worries YP reported was to do with school-work/exams, but it also found that the worry was more than just about wanting to do well. The participants talked about the source of that worry coming from social and academic judgement and pressures/expectations. Deci and Ryan (2000) explain that mental health/wellbeing difficulties arise when SDT needs go unsatisfied or thwarted (i.e. basic psychological needs micro-theory –see table 2.2). The thematic analysis of this research supports that claim, as it found that students attributed factors that thwart need fulfilment as causes of their worries in school.

Although this research could be criticised for its limited sample (i.e. small, only two schools in one LA), interestingly, other research reports that a comparable kind of pressure and judgement (e.g. pressure to meet targets, inspections, pressure from leaders) is affecting the mental health and wellbeing of teaching staff, according to an Association of Teachers and Lecturers (ATL) survey (2014). This evidence questions the link between the pressures upon school staff, CYP and their wellbeing. Is it possible that they are related in a linear manner, whereby teacher pressures are passed onto students and creating a stressful school environment for some? Previous research by Niemiec and Ryan (2009) indicated that the satisfaction of teachers' needs can also have an impact on supporting the needs of CYP. For

example, external pressures (e.g. pressure to perform, imposed curriculum) placed on teachers was associated with teachers using more autonomy-controlling (e.g. giving solutions and ensuring the child implements the solutions) and less autonomy-supportive strategies (e.g. promoting student led problem solving) in the classroom (Pelletier et al., 2002; Roth et al., 2007; Ryan & Brown, 2005). Indeed, the current research found that the factors students saw as contributing to their worries were those that stymied SDT need fulfilment (e.g. *“Teachers don’t understand how much we have to do; [we feel] demotivated – [there’s] too much pressure, [feeling] anxious leads to more worries.”*) and some comments in the focus groups (NB: although not recorded by participants) alluded to school staff feeling stressed and not having enough time to help students (e.g. some reported feeling like they were interrupting and inconveniencing them due to staff responses and facial expressions). In contrast, the thematic analysis of RQ2 found the opposite, that factors nurturing SDT needs were the support mechanisms that students suggested to help their wellbeing.

5.2.2. RQ2 reviewed

What school based support mechanisms will adolescents’ suggest needing to manage their anxiety during the empowerment process?

In a prospective study Black and Deci (2000) found students’ perceptions of autonomy supportive teaching (i.e. an approach that nurtures the three SDT needs – explained in chapter 2) predicted a decrease in anxiety over one semester. Similarly, Wang et al. (2013) found that when goals were framed intrinsically (i.e. goal content micro-theory- explained in chapter 2), students reported statistically lower levels of anxiety compared to the extrinsic condition. These findings align with the current research, as the thematic analysis indicated that the strategies/suggestion that participants said would support their worries and wellbeing were those that nurtured their needs for autonomy, competence and relatedness. For example, the suggestion to have a *“poster to explain who you can go to if there is a problem”*, supports all three needs because the poster provides the information they need to make a free choice/decision (autonomy) to seek support from another (relatedness) to have an effect on/do something about their situation/feelings (competency). Since previous research and the data from this research suggests that need fulfilment may positively impact wellbeing, the researcher wanted to know if the application of SDT/attempts to nurture needs would show a measurable change in need fulfilment (i.e. RQ3).

5.2.3 RQ3 reviewed

RQ 3: Will students report a change in need satisfaction following the empowerment process (i.e. does the process satisfy needs)?

Interestingly, the quantitative and qualitative data used to answer this question were in conflict. The quantitative suggested that there was no real change, but the qualitative told a different story. A possible reason for this may be due to the questions asked in the BPNS-G, which include set statements where participants have to rate how truthful they are for them while the semi-structured questionnaire had open ended questions to measure change. For instance, the BPNS-G includes the statement, “There are not many people that I am close to.”, which is a statement that measures relatedness. However, it does not pick up a change in the degree of closeness/relatedness one may feel towards others or a group. In fact, in the direct questions on the semi-structured questionnaire, some participants did not report a change in their relationships when asked directly, yet made comments that indicated they had become closer others in some way. For example, one participant said “*“Yeah, [the way I feel about others has changed because]you see others from different perspectives. (...) [I’ve] change[d] the feelings I have for others.”*” This extract indicates an improved closeness to others because she can now see others’ points of view, yet that does not fall into her conceptualisation of ‘being close to others’; otherwise, she probably would have said her relationships had changed. It is possible that she sees closeness as a behavioural or physical entity and has not seen a difference in that realm as a result of her change in thinking and feeling; therefore, there may also be a sleeper effect whereby behavioural changes manifest later. Nonetheless, the questions in the BPNS-G do not measure the kind of change she reported. Furthermore, the intervention was short (i.e. three sessions) and this may not have been enough to measure consistent changes in need fulfilment in their lives. For example, the BPNS-G includes the statement, “In my life I do not get much of a chance to show how capable I am.” and even though participants reported feeling like they made a positive difference (NB: one actually said he felt powerful after feedback to senior staff) that does not mean that they have had a lot of chances to show how capable they are outside of the intervention. It is probably more likely that important people in their everyday lives (e.g. teachers, parents, friends) would have to nurture their needs in order to see a significant quantitative change. This may explain why some studies have not chosen to measure changes in need fulfilment at all (e.g. Burton et al., 2006; Grolnick & Ryan, 1987; Joussemet et al, 2004; Sheldon et al, 2002; Wang et al., 2013) or found significant changes in need

fulfilment following short interventions (e.g. Saavard et al, 2013). On the other hand, more research has investigated the impact of nurturing needs on wellbeing, which is what RQ4 aimed to investigate.

5.2.4 RQ4 reviewed

Will the process of empowerment (applying SDT) reduce adolescents' anxiety and improve general wellbeing?

Like Black and Deci (2000) and Wang et al. (2006), the data of this research suggests an overall reduction in anxiety when SDT needs are nurtured. However, overall wellbeing showed a slight decline in scores on the BPNS-G while scores increased more for the scale measuring positive affect (i.e. one aspect of wellbeing) and the qualitative data shows participants reporting improvements in affect. This also aligns with previous research, as only two of the key intervention studies in the literature review (Sheldon et al., 2002; Standage et al., 2013) measured the full SDT definition of wellbeing.

To recap, the following definition of wellbeing has been used for this research: *Wellbeing is comprised of subjective feelings (e.g. satisfaction and happiness – hedonic wellbeing) and the ability to function in isolation as well as with others (Eudaimonia wellbeing).*

Standage et al.'s (2013) findings have not yet been published and Sheldon et al., (2002) did not find a significant change in wellbeing. However, several other studies (e.g. Burton et al., 2006; Grolnick & Ryan, 1987; Joussemet et al, 2004; Wang et al., 2013) did find significant improvements in affect or reduction of negative affect (i.e. the subjective aspect of wellbeing), which is similar to this research. Again the brief duration of the interventions in previous research and this research may explain why there was no change in the full measurement of wellbeing. However, the intervention did not intend to directly teach skills or provide a structure/process for practicing skills that would help participants function better alone or with others. Hence, the empowerment process may not include the necessary elements to improve overall wellbeing. Although, an analysis of the semi-structured questionnaire revealed a subtheme whereby participants were reporting a better ability to cope with new skills and knowledge; thus, the lack of overall change might be explained developmentally, as older participants (yr13) showed a larger decrease in anxiety mean scores and the younger participants' (yr10&11) wellbeing scores decreased while their older counterparts retained the same score. For example, Meyers (1995) explains that between the

ages of 13-23 self-concept typically becomes more positive as a clearer sense of identity forms. The later teens will have had more time to come to terms with the physical, social, cognitive and emotional changes associated with adolescents. In this research the older participants indicated Meyer's (1995) point in rapport building discussions when they each clearly spoke about their options and career plans for the future.

Furthermore, Elkind (1967) proposed a theory of adolescent egocentrism whereby the individual becomes preoccupied by him/herself and believes that others are just as engrossed with his/her appearance and behaviours, thus creating an imaginary audience. Elkind (1967) suggests that this plays a part in the self-consciousness regularly associated with early adolescence, which lessens in the later teens. This echoes some of the discussions in the groups where the year 13 groups talked about how social conditions had improved with less conflict with peers. Some felt that being in a smaller group (i.e. students who stayed on in the 6th form) meant that they had something in common and this was perceived to reduce social pressures, thus the change in their school experience/environment also appeared to affect the way they felt. So, while participants reported improvements in anxiety and the subjective element of wellbeing, the age related differences in scores may be explained by developmental psychology and the changes they experience in school once they are in the 6th form.

Just as there may be something about the development and experience of adolescents that affected their responses to the intervention, the researcher's background and experience is likely to have had an impact on the empowerment process. As a result, the next section will include a reflexive account of the researcher's experience.

5.3 Reflexive account

Nightingale and Cromby (2002) state that the researcher will always influence the results because the biases and background of the researcher can influence the way the researcher interacts with participants. Being aware of this influence is particularly important when the researcher is also the person analysing the data, such as in this research. The current research cannot be completely objective and analysis that is self-aware is important for the validity of the research (Finlay, 2002).

As an individual whose wellbeing improved due to people listening to her and helping her to make the changes she wanted in her life as a young adolescent (i.e. nurturing her SDT

needs), the researcher was motivated to apply SDT with vulnerable adolescents because she strongly valued the principles of the theory due to first-hand experience. The personal interest in SDT may have affected the empowerment process as well as the analysis of the qualitative data (e.g. a bias towards seeing excerpts as relating to need fulfilment, yet an effort to remain open was made and some data was not categorised according to the theory—see discussion in chapter 4 and section 5.4).

Being an unknown, American, female researcher whose initial focus was to build rapport may have affected the initial data collection. For example, the first student to come to the first group was said to have had a bad morning. He entered the room reluctantly and was not smiling. The researcher made an effort to be friendly, open in body language and welcome him in a soft voice that matched the pace of his movements. After this, he immediately asked if the researcher was American, started smiling and speaking more animatedly. Interestingly, when analysing the pre-data measures, a pattern emerged that showed participants were three times more likely to change an answer (i.e. scribble out the initial response) to be more negative on the measure the teachers administered (i.e. SCARED-R) and five times more likely to change a negative answer to a positive one on the measures the researcher administered (i.e. Ryff Scales and BPNS-G). However, this pattern disappeared upon post-data collection when the participants were more familiar with the researcher, which makes the changes found in the Ryff and BPNS-G measures questionable and may go some way to explaining why there was little to no change found in these measures.

Moreover, the researcher's ethical values in protecting her participants affected how much she talked in one group's feedback session, which may have made the empowerment process experience different for this group (i.e. affected their post-data responses). For example, the researcher was afraid that the senior manager's language in the session might lead to the students feeling like their worries were abnormal/pathological, as (s)he kept talking about their individual levels of anxiety being an issue and asking them questions about it, such as when and how did their worries become such a big problem and how could staff identify students like them for intervention. Consequently, the researcher intervened on a few occasions to explain that one of the goals of the group was to find ways to improve wellbeing for all students, as worries are a normal part of life. However, after the session, like the other groups, the participants made similar, positive comments regarding the experience, so the different group interaction may have been less influential than the researcher thought.

In summary, the background and biases of the author may have affected the research; however, certain methodological steps (e.g. using Braun and Clarke's (2006) steps to TA, remaining open when coding) helped to protect the validity of the research. As the initial meeting with the researcher seemed to have an impact on how accurately the participants completed the quantitative measures, the qualitative helped to combat this influence by providing insight into the wellbeing and need fulfilment changes they experienced. Building rapport and gaining trust of the brave YP willing to take part in this research was a really a positive experience and helped to elicit insightful, rich data. With that being said, there were still a number of methodological limitations that affected the research and these will be discussed next.

5.4 Methodological limitations

Even though a lot of planning and careful consideration went into the design of this research, there are several limiting factors. As this is a piece of real world research with vulnerable participants, practical constraints and ethics did not allow for the use of a control group or delayed intervention group. This would have helped to identify if any changes found in the dependent variables was a result of the empowerment process versus other extraneous variables (e.g. time of year); however, real world research means that, unlike a laboratory environment, there are an array of uncontrolled variables that could confound the results. Even if a control group could have been used, the sample size was too small for statistical power and makes it impossible to determine if the findings are a result of intervention or other variables. This means that the results cannot be generalised to other self-reporting anxious adolescents. Although there was an attempt to produce a representative sample (e.g. 2 schools: one in a deprived and one in an affluent area), there were so few participants and a lack of cultural/ethnic variation that no meaningful interpretations can be validly made. At the same time, this research helps to suggest methods and changes that researchers can make to investigate a topical but challenging area and its emerging research messages have powerful implications for schools and EPSs.

The pre and post measures to identify change in the dependent variables can be criticised. Despite the rigorous methods to design the quantitative measures, they all lack flexibility and do not allow for further exploration. For example, the BPNS-G asks "*I have been able to learn interesting new skills recently.*" This relies on participants' moods, memories and everyone having the same understanding of what "skills" are. For instance: if someone is in a

negative mood, they might find it difficult to think of anything interesting/positive; they may be just recalling the last couple of days when they read the word ‘recently’; one person might believe that learning to see from other’s perspectives is a skill whereas another only conceptualises academic abilities as skills. The semi-structured questionnaire created aligned with questions in the quantitative questionnaires. It provided more flexibility in that it elicited richer responses through open questions, yet because it was not an interview some interesting or unclear responses could not be further explored. This was why a handful of responses were not coded in the thematic analysis for Q3 and 4 because trying to guess the meaning of what they said would have made the interpretation biased. Furthermore, all quantitative measures were developed in the US, meaning the questions may be less appropriate for different populations. The researcher did consider the ‘user friendliness’ of the measures and made minor adjustments, discussed in chapter 3, to make them more accessible. However, some of it may be misunderstood and participants could feel embarrassed to ask, such as one young person who waited until all of his peers left the room to ask what ‘envy’ meant. He explained that he had just guessed any answer in response to the question. These shortcomings highlight how useful some qualitative methods can be for real world research, education and EP practice because they allow for greater understanding of what the participants really think and feel. In this research the qualitative findings told a much more comprehensive story about adolescents’ experiences and feelings, which helped to counteract the limitations of the quantitative measures.

The research triangulated the findings through the use of qualitative and quantitative data, but both sources of data came from the participants, thus was not triangulated with other sources like parents or teachers. As an empowerment piece of research, the researcher was most interested in the participants’ experience, but it could be argued that further triangulation would strengthen the validity of the findings to see if any changes in the dependent variables were noticed by others. With that being said, by listening to the YP’s perspectives an important message about what supports their wellbeing is communicated and has implications for those working with YP.

The multiple roles played by the researcher (e.g. designer, intervention facilitator, analyst) could be criticised for adding an additional layer of subjectivity to the research, yet the researcher did employ strategies to gain better objectivity (e.g. checking meaning of what participants said in the focus groups, triangulating data, using standardised instructions for

the pre-meeting, reflection, critically reviewing coding and themes through an established method – thematic analysis).

Another limitation of the research may be in the limited duration and intensity of the intervention. Had the research focused on training teachers or parents to nurture need fulfilment in YPs' daily lives, then there may have been greater gains in the key variables. When adults who regularly interact with CYP use an autonomy supportive approach (or are perceived to use one), research has shown significant improvements in wellbeing, such as an increase in self-esteem (Deci et al., 1981) and a decrease in anxiety (Black & Deci, 2000). The current research indicated a decrease in anxiety and improvements in affect as well as qualitative reports of developments in need fulfilment following the empowerment process; however, those findings may have been short lived, as subsequent follow-up measures were not used due to time constraints. However, Hart (1992) explains that there are long term benefits (e.g. creating more confident members of society) to increasing YP's levels of participation in programmes such as the intervention in this research. Participants reported feeling more confident and in control of life (i.e. a subtheme from the thematic analysis), which aligns with Hart's (1992) findings, therefore possibly suggesting longer lasting benefits. At the same time, if the role of nurturing SDT needs was spread across staff in schools, then schools may be more likely to see a range of positive outcomes, thus this research is useful in that it has significant implications for schools, which will be visited next.

5.5 Implications for schools

Although one of the intentions of the research was to help schools to change systems (e.g. policy, strategies used to support students) based on the participants' feedback, it is not yet clear what those changes might mean for students and whether the ethos of those changes will permeate throughout the schools. SDT has its roots in positive psychology and a whole school approach where principles are embedded in every day school practice has been found to have a greater positive impact (Waters, 2011). Consequently, schools taking on a more autonomy supportive approach to teaching to nurture needs may lead to greater and more varied positive outcomes for all YP (e.g. motivation – Jang, Reeve, Ryan & Kim, 2009; academic achievement – Kage & Namiki, 1990; creativity – Koestner et al, 1984; classroom engagement – Reeve, 2004; wellbeing – Reis et al, 2000; interest in learning – Tsai, Kunter, Ludtke, Trautwein & Ryan, 2008) .

Teachers can do this by providing choices for academic activities, giving meaningful explanations for why a learning task is useful (Reeve et al., 2002), valuing students' voice (Black & Deci, 2000) and minimising the importance of evaluative pressures as well as reducing the use of persuasion through sanctions (Reeve, 2004). Furthermore, schools can provide suitably challenging learning tasks and appropriate scaffolding, including effective feedback that is less focused on evaluation but emphasises students' effectiveness and provides clear guidance on how to master the task (Kage & Namiki, 1990; Niemiec & Ryan, 2009). Acknowledging and empathising with students' experience of negative affect is a means through which students can feel valued and related to the teacher (Reeve et al., 2004; Savard et al., 2013). If adults model these behaviours, then it may change the culture of the school and foster positive peer relationships.

In one feedback session, a senior manager expressed the view that some teachers are naturally better at providing pastoral like support while others are more suited to teaching their subject material. However, Reeve et al. (2004) has shown that teachers can learn to implement an autonomy supportive approach, thus indicating a role for EPs.

5.6 Implications for educational psychologists

This research can be seen to have significant implications for EPs who could support autonomy supportive teaching in schools through training and supervising programmes to embed autonomy supportive teaching throughout. They could help the school to monitor and evaluate the programme based on the school's areas of interest. Some teachers may be more interested than others to change their practice and it would go against the principles of SDT to undermine their autonomy and force them take on such an approach. However, EPs could first work with interested staff to implement, monitor and measure changes. This could begin a new school narrative that influences others to want to adopt the approach.

There may also be a role for EPs to work with senior management and school staff to develop systems that support staff members' SDT needs. Comments made by participants in this research as well as previous research (ATL, 2014) suggest that their need fulfilment and wellbeing need further support. As research has found that exerting control over staff is associated with teachers using more autonomy-controlling strategies with CYP (Pelletier et al, 2002; Roth et al., 2007; Ryan & Brown, 2005), an initial staff intervention may be a starting point for EPs to support change in schools that nurtures everyone's needs.

5.7 Research contributions and recommendations for future research

Traditionally there has been a lack of mixed methods studies within SDT research (Standage et al., 2013), thus the current research has made a distinctive contribution to the field and suggested that the quantitative measure for SDT needs (BPNS-G) may be limited when used alone, as its fixed questions do not provide the richer descriptions of need fulfilment that qualitative methods offer. Additionally, previous research did not always measure the comprehensive meaning of wellbeing as defined by SDT. The findings from this research correspond with earlier research (e.g. Burton, 06; Saavard et al., 2013; Sheldon et al., 2002) thus strengthening the validity of their results suggesting that brief SDT interventions do not lead to improvements in the full definition of SDT wellbeing, but can improve affect. Uniquely, this research has applied SDT in an empowerment process, finding qualitative enhancements in need fulfilment as well quantitative and qualitative improvements in anxiety and affect. This research has powerful and important implications in mental health and wellbeing for YP. It suggests that there are practical and non-complicated ways to support wellbeing in schools and this could be supported by EPs, as a shift in thinking and practice may be required to enable this.

To further this research, a larger sample with a delayed intervention control group would help to see if the changes found are statistically significant and more generalisable. However, this may need to be done as a school wide initiative, as gaining consent as an external trainee EP was very challenging. The random selection of participants regardless of their levels of anxiety may help because parents will not have to worry that their children are being labelled in a certain way and may be more likely to consent. A separate analysis of quantitative and qualitative data for younger versus older students would be important to see if the trend found in this research is repeated. The larger sample would help to qualitatively see if changes are more likely to be due to developmental reasons than the intervention and the use of interviews (opposed to semi-structured questionnaires) would provide a better means for understanding each age group's developmental story. Additional triangulation (e.g. observations in lessons, feedback from parents and teachers) would make the procedures more rigorous and support more valid conclusions regarding change in the dependent variables. The information gained from these adaptations may help to create bespoke training to schools that better nurture need fulfilment for staff and students.

5.8 Conclusion

This research presents a unique and different perspective through using a mixed methods approach when applying SDT in an empowerment process with anxious adolescents and has achieved what it set out to do by identifying the following:

- YP indicate the causes of their anxieties stem from factors that thwart SDT need fulfilment while their school based suggestions to support wellbeing centre around nurturing those needs.
- Following an empowerment process that aimed to nurture SDT needs, quantitative and qualitative measures have shown a decrease in reported student anxiety and increase in positive affect (but not the full SDT definition of wellbeing).
- A meaningful change in SDT need fulfilment following the intervention was not measured quantitatively but the qualitative data shows that all participants appeared to experience some kind of development in need fulfilment. This may be due to the measurement used, the brevity/intensity of the intervention and/or qualitative data only indicating the beginning of change in need fulfilment.

These findings have implications for future research, school and EP practice, as they present a means for improving wellbeing in schools, which is a key issue facing current society (e.g. ATL, 2014; Department of Health, 2015). Although there are a number of factors affecting mental health and wellbeing, the school context can play an invaluable role in upskilling individuals to deal with life's challenges and psychology can act as the vehicle to drive such positive change.

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Appendices

Appendix A: Strategy for systematic literature review

Literature Review

Electronic data bases searched September, October and November 2015 as well as April 2016

- Academic Search Complete (EBSCO)
- British Education Index (EBSCO)
- Child Development & Adolescent studies (EBSCO)
- PsychINFO (EBSCO)
- PsychArticles (EBSCO)

Key words and synonyms used in different combinations to search databases

Participants	Intervention	Outcomes
Adolescents	Self-determination theory	Wellbeing or well-being
Teenagers	Self determination theory	Mental health
Children		Anxiety (NB: included due to relevance of this research)
YP		Happiness
Student		Welfare
Pupil		

Boolean searches were used for this review. The boolean search operator, 'and' was used and limiters were ticked, where possible, for inclusion and exclusion criteria (e.g. 'full text' and 'peer reviewed' ticked for all data bases and 'English' ticked for PsychINFO database). The lists generated from each combination were examined manually to select the studies for the literature review.

Inclusion criteria	children and YP as participants	An aspect of SDT was studied (e.g. at least one need)	Research measured an aspect of wellbeing/mental health and/or anxiety	Direct intervention with CYP took place in an educational environment	Peer reviewed	Full text available in English
Exclusion criteria	Adults or pre-school aged as participants	Not relevant to SDT	Research measured variables not relevant to wellbeing	Indirect or direct intervention took place outside an educational environment	Not peer reviewed	Full text not available or not written in English

Result: seven studies met criteria and were chosen for detailed critical evaluation (see chapter 2)

Appendix B: Screen for Child Anxiety Related Emotional Disorders-Revised (Muris et al, 1999a)- adapted

Worries Questionnaire



Name: _____

Date: _____

Age: _____

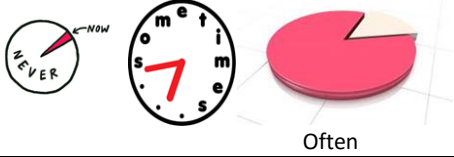
Year: _____

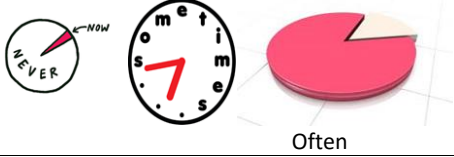
Please circle: Male / Female

Below, you will find a number of statements, which refer to children's fears and worries. Please read each statement carefully and indicate how frequently you have experienced it **during the last 3 months**: never or almost never, sometimes or often. There are no right or wrong answers, only answers that are true for you in the last 3 months. Please tick the relevant box.

The researcher, Tiffany, will use this information to identify group members that might want to take part in a group discussion, but she will not share your personal responses with anyone else (Remember, you only have to take part if you want to). She will write about what you and your peers say in this questionnaire (e.g. main worries and amount of worrying from the group as a whole, not as an individual), but no one's name will be mentioned.

		Never or almost never 0	Sometimes 1	Often 2
1	When I feel frightened, it is hard to breathe.			
2	I am afraid of heights.			
3	I get headaches or bellyaches when I am at school.			
4	I don't like to be with unknown people.			
5	When I see blood, I get dizzy.			
6	I want things to be in a fixed order.			
7	I get scared when I sleep away from home.			
8	I worry about others not liking me.			
9	When I get frightened, I feel like passing out.			
10	I think that I will be contaminated with a serious disease.			
11	I am nervous.			
12	I have strange thoughts that frighten me.			
13	I follow my mother or father wherever they go.			
14	People tell me that I look nervous.			
15	I feel nervous with people I don't know well.			
16	I am afraid to visit the doctor.			
17	I don't like going to school.			
18	When I get frightened, I feel like I am going crazy.			
19	I worry about sleeping alone.			







20	I am afraid to visit the dentist.			
21	I worry about being as good as other kids.			
22	I am afraid of an animal that is not really dangerous.			
		Never or almost never 0	Sometimes 1	Often 2
23	I get scared when there is thunder in the air.			
24	I do things more than twice in order to check whether I did it right.			
25	I have frightening dreams about a very unpleasant event I once experienced.			
26	I want things to be clean and tidy.			
27	When I get frightened, it feels like things are not real.			
28	I would feel scared if I had to fly in an aeroplane.			
29	I have nightmares about something bad happening to my parents.			
30	I worry about going to school.			
31	I perform rituals that help me to get less scared of my thoughts.			
32	When I feel frightened, my heart beats fast.			
33	I am scared when I get an injection.			
34	I am afraid of getting a serious disease.			
35	I feel weak and shaky.			
36	I have nightmares about something bad happening to me.			
37	I'm so scared of a harmless animal that I don't dare touch it.			
38	I worry about things working out for me.			
39	I doubt whether I really did something.			
40	When I get frightened, I swear a lot.			
41	I am a worrier.			
42	I feel scared when I watch a medical operation on TV.			
43	I try not to think about a very unpleasant event I once experienced.			
44	Suddenly I get really frightened for no reason at all.			
45	I am afraid to be alone in the house.			
46	I get scared when I think back to a very unpleasant event I once experienced.			
47	It is hard for me to talk with unfamiliar people.			
48	When I get frightened, I feel like I am choking.			
49	People tell me that I worry too much.			
50	I don't like to be away from my family.			
51	I am afraid of having anxiety (or panic) attacks.			




52	I worry that something bad might happen to my parents.			
53	I feel shy with people I don't know well.			
		Never or almost never 0	Sometimes 1	Often 2
54	I have unwanted thoughts about hurting other people.			
55	I worry about what is going to happen in the future.			
56	When I get frightened, I feel like throwing up.			
57	I worry about how well I do things.			
58	I am scared to go to school.			
59	I worry about things that happened in the past.			
60	When I feel frightened, I get dizzy.			
61	I get scared in small, closed places.			
62	I have strange, scary thoughts that I prefer not to have.			
63	I am afraid of the dark.			
64	I have unwanted thoughts about a very unpleasant event I once experienced.			
65	I am afraid of an animal that most children do not fear.			
66	I don't like being in a hospital.			
67	I feel nervous when I am with other children or adults and I have to do something while they watch me (e.g. read aloud, speak, play a game, play a sport).			
68	I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.			
69	I am shy.			

Appendix C: Basic Psychological Needs Scale in General (Gagne, 2003) – adapted

Reflecting

Please read each of the following items carefully, thinking about how it relates to your life, and then indicate how true it is for you. Use the following scale to respond:

	1	2	3	4	5	6	7
	Not at all True			somewhat true			very true
							
	1	2	3	4	5	6	7
1. I feel like I am free to decide for myself how to live my life.							
2. I really like the people I interact with.							
3. Often, I do not feel very competent.							
4. I feel pressured in my life.							
5. People I know tell me I am good at what I do.							
6. I get along with people I come into contact with.							
7. I pretty much keep to myself and don't have a lot of social contacts.							
8. I generally feel free to express my ideas and opinions.							
9. I consider the people I regularly interact with to be my friends.							
10. I have been able to learn interesting new skills recently.							
11. In my daily life, I frequently have to do what I am told.							
12. People in my life care about me.							
13. Most days I feel a sense of accomplishment from what I do.							
14. People I interact with on a daily basis tend to take my feelings into consideration.							
15. In my life I do not get much of a chance to show how capable I am.							
16. There are not many people that I am close							

to.							
17. I feel like I can pretty much be myself in my daily situations.							
18. The people I interact with regularly do not seem to like me much.							
	1 	2	3	4 	5	6	7 
19. I often do not feel very capable.							
20. There is not much opportunity for me to decide for myself how to do things in my daily life.							
21. People are generally pretty friendly towards me.							

Appendix D: Ryff Wellbeing Scales (Ryff, 1989) - adapted

Wellbeing Questionnaire



For each question, please select the answer that is most true for you. Circle 1- 6 to say how much you agree or disagree with each statement.

AUTONOMY

1. Sometimes I change the way I act or think to be more like those around me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
2. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
3. My decisions are not usually influenced by what everyone else is doing.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
4. I tend to worry about what other people think of me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
5. Being happy with myself is more important to me than having others approve of me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
6. I tend to be influenced by people with strong opinions.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
7. People rarely talk me into doing things I don't want to do.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
8. It is more important to me to "fit in" with others than to stand alone on my principles.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
9. I have confidence in my opinions, even if they are contrary to the general consensus.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
10. It's difficult for me to voice my own opinions on controversial matters.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
11. I often change my mind about decisions if my friends or family disagree.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
12. I am not the kind of person who gives in to social pressures to think or act in certain ways.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
13. I am concerned about how other people evaluate the choices I have made in my life.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6

14. I judge myself by what I think is important, not by the values of what others think is important.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6

ENVIRONMENTAL MASTERY

1. In general, I feel I am in charge of the situation in which I live.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
2. The demands of every day life often get me down.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
3. I do not fit very well with the people and the community around me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
4. I am quite good at managing the many responsibilities of my daily life.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
5. I often feel overwhelmed by my responsibilities.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
6. If I were unhappy with my living situation, I would take effective steps to change it.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
7. I generally do a good job of taking care of my personal finances and affairs.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
8. I find it stressful that I can't keep up with all of the things I have to do each day.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
9. I am good at juggling my time so that I can fit everything in that needs to get done.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
10. My daily life is busy, but I get a sense of satisfaction from keeping up with everything.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
11. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
12. My efforts to find the kinds of activities and relationships that I need have been quite successful.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
13. I have difficulty arranging my life in a way that is satisfying to me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
14. I have been able to build a lifestyle for myself that is much to my liking.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6

POSITIVE RELATIONS WITH OTHERS

1. Most people see me as loving and affectionate.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
2. Maintaining close relationships has been difficult and frustrating for me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
3. I often feel lonely because I have few close friends with whom to share my concerns.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
4. I enjoy personal and mutual conversations with family members or friends.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
5. It is important to me to be a good listener when close friends talk to me about their problems.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
6. I don't have many people who want to listen when I need to talk.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
7. I feel like I get a lot out of my friendships.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
8. It seems to me that most other people have more friends than I do.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
9. People would describe me as a giving person, willing to share my time with others.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
10. I have not experienced many warm and trusting relationships with others.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
11. I often feel like I'm on the outside looking in when it comes to friendships.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
12. I know that I can trust my friends, and they know they can trust me.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
13. I find it difficult to really open up when I talk with others.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
14. My friends and I sympathize with each other's problems.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6

SELF-ACCEPTANCE

1. When I look at the story of my life, I am pleased with how things have turned out.
--

Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
2. In general, I feel confident and positive about myself.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
3. I feel like many of the people I know have gotten more out of life than I have.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
4. Given the opportunity, there are many things about myself that I would change.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
5. I like most aspects of my personality.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
6. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
7. In many ways, I feel disappointed about my achievements in life.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
8. For the most part, I am proud of who I am and the life I lead.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
9. I envy many people for the lives they lead					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
10. My attitude about myself is probably not as positive as most people feel about themselves.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
11. Many days I wake up feeling discouraged about how I have lived my life.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
12. The past had its ups and downs, but in general, I wouldn't want to change it.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
13. When I compare myself to friends and acquaintances, it makes me feel good about who I am.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6
14. Everyone has their weaknesses, but I seem to have more than my share.					
Strongly disagree 1	Moderately disagree 2	Slightly disagree 3	Slightly agree 4	Moderately agree 5	Strongly agree 6

Appendix E: Teacher guide for delivering the PSHE session on wellbeing

Teacher's Guide for Delivering the Worries Questionnaire X School

Make sure that the room is set up in an exam style structure so that students cannot see what someone else has written (NB: This will help to protect the privacy of each student.).

The Aim

An overarching aim of this research is to empower students who self-identify as anxious in order to reduce anxiety and improve wellbeing.

The Purpose

The worry questionnaire is a tool that enables students to self-identify as anxious. Importantly, this research is interested in the views of the students and this will help to provide insight into the types of worries they have.

Wellbeing lesson

1. Start with a discussion about wellbeing – what is it and what supports people's wellbeing and health??
2. Explain that it's normal to have worries and the things we do and the support we receive can affect our wellbeing.
3. You can use a wellbeing lesson plan that is part of the school's curriculum, or you can give out scenarios for students to problem solve what they think would help the student in the scenario (i.e. things they could do and others could do).

The Worries Questionnaire

1. At the end of the lesson introduce the research on wellbeing. Please remind them that worries are a normal part of being a teenager and explain that this research will aim to find out more about teenage worries and how to support them.
2. Read out the information and consent form.
3. Say that you can answer any questions that the students might have or you or the students can e-mail me to clarify (Tiffany.Kearns@centralbedfordshire.gov.uk).
4. Hand out the worries questionnaire along with another non-research related activity (NB: The reason for doing this is to protect the student's right to privacy so others don't know if they don't want to do it or if their parents haven't consented). Explain that they can complete the worries questionnaire if their parents have agreed and if they are interested in participating. If they don't want to, then they should complete the non-research related activity.
5. Regardless of the handout that is being completed, instruct students to use a folder or book to cover their responses.
6. When students have completed, explain that even though worries are normal, sometimes we might feel like we need additional support in managing them. Then handout the list of support services available.
7. When the students are leaving the room, they will hand in all handouts to their teacher (NB: If some students have completed the worries questionnaires without parental consent, these will be shredded.)
8. Without looking at the responses, please place them in an A4 envelope to give to the SENCO, X.

Appendix F: Scenarios teachers can use in the PSHE wellbeing session

Possible Scenarios

Andre



Andre is working hard on his maths homework that is due tomorrow. He is able to do the first two problems and then he is stuck and can do no more. He starts to worry that his parents and teacher are going to be angry with him. He is also afraid that this means he will not pass his maths test in two days.

1. What could Andre do that might support his worries?
2. Can anyone or anything else help Andre?
3. For each suggestion, think about what the outcome might be/what might happen. Are some outcomes better than others?

Hassan



Hassan has been best friends with Al Barry and Abdel since he was a child, but recently Hassan lost his temper with Abdel and Al Barry because he felt like they were always trying to tell him what to do. Now, Hassan's friends are not speaking to him. He feels angry, but he also feels lonely and is worried that his lifelong friends may be gone.

1. What could Hassan do that might help him?
2. Can anyone or anything else help Hassan?
3. For each suggestion, think about what the outcome might be/what might happen. Are some outcomes better than others?

Jackie



Jackie just broke up with her boyfriend, Mike, and now he is dating another girl. She feels jealous and is worried that he left because she's not good looking enough.

1. What could Jackie do that might help her?
2. Can anyone or anything else help Jackie?
3. For each suggestion, think about what the outcome might be/what might happen. Are some outcomes better than others?

Mei



Mei has been preparing for an exam and feels like she's under a lot of pressure to do well. Her parents and teachers say that they know she'll do fine, but she is worried that there's too much to learn and she won't be fine. She is worried that her parents and teachers will be disappointed and her friends won't think she's very smart anymore. She's so worried that she can't really focus on preparing for the exam.

1. What could Mei do that might help her?
2. Can anyone or anything else help Mei?
3. For each suggestion, think about what the outcome might be/what might happen. Are some outcomes better than others?

Appendix G: Semi-structured questionnaire - development tools and finished product

Appendix G1: Table of specifications (to develop semi-structured questionnaire)

Table of Specifications

Area of interest domain	Items representing the area of interest domain					
<i>Anxiety</i>	Amount of worries (more, less, same)	The way the worries are perceived (e.g. more tolerant or accepting of worries)	Perception of the ability to manage emotions (e.g. knowing how to deal with worries and feeling able to effectively to do those things)	Change in the behavioural expression of anxiety (e.g. avoidance, giving up easily , etc)	Change in physiological sensations (e.g. shaking, stomach ache, relaxed, etc)	Worries about self
	Worries about others	Worries about environment				
<i>Need fulfilment – relatedness, autonomy, competence</i>	Perception of closeness of relationships	Perception of value of relationships	Positive emotion linked to relationships (e.g. happiness)	Perception of control over own environment	Perception of ability to make and willingness to carry out own choices	Perception of ability to achieve own goals
	Perception of reciprocal value of relationship (e.g. value others' ideas and they value yours)	Perception of ability to influence the surrounding environment when desired	Perception of ability to be his/her self and follow one's values and ideas when faced with challenges			
<i>Wellbeing</i>	Perception of subjective emotional experience (e.g. satisfaction, joy, worry, etc)	Perception of ability to function in isolation (e.g. deal with individual challenges)	Perception of ability to function with others (e.g. teacher interactions, group tasks, social activities, fit in with peers and school system)	Perception of self within the environment (e.g. self-acceptance, concept, confidence, etc).	Perception of ability to recover from setbacks	

Appendix G2: Gunning's Fog Index calculations for readability (to ensure accessibility to a wide range of SEN)

Gunning's Fog Index readability calculations for the semi-structured questionnaire

1. 100 word passage:
 1. Do you have more, the same or a less amount of worries as before the research?
- If more or less, please explain.
 2. Has the way you think about your worries changed since doing this research (For example, you may still have those worries, but you don't see them as being as scary anymore.)?
- If so, how?
 3. Do you think that your ideas and suggestions are important to others?
- What makes you think that?
 4. Do you think that your ability to make changes in your own life has changed?
- If yes, please explain.

100 words and 9 sentences

2. Average sentence length (ASL) = words/sentences; $100/9 = 11.11$
3. Number of words with three or more syllables (i.e. proper nouns, combinations of easy or hyphenated words or 2 syllable verbs made into 3 with endings like 'es' or 'ed') = 1
(example), 1 (anymore), 1 (suggestions), 1 (important), 1 (ability) = 5
4. Number of long words divided by the number of words in the passage; $5/100 = .05$ or 5% - the percentage of hard words (PHW)
5. $ASL + PHW$; $100 + 5 = 105$
6. $(ASL + PHW) \times .04$; $(105) \times .04 = 4.2$: the grade level is 4.2
(Formula source: <http://www.readabilityformulas.com/gunning-fog-readability-formula.php>)

Appendix G3: Follow-up semi-structured questionnaire

Research Evaluation

When answering these questions, please think about how you were before the research and how you are now.



Thinking questions

5. Do you have more, the same or a less amount of worries as before the research?
 - If more or less, please explain.
6. Has the way you think about your worries changed since doing this research (For example, you may still have those worries but you don't see them as being as scary anymore.)?
 - If so, how?
7. Do you think that your ideas and suggestions are important to others?
 - What makes you think that?
8. Do you think that your ability to make changes in your own life has changed?
 - If yes, please explain.
9. Do you think your relationships have changed since taking part in this research (for example, seeing yourself as being closer or more distant to others)?
 - If so, please explain.
10. Looking back, do you feel more, the same or less in control of making important decisions for yourself?
 - If more or less, please explain.



Feeling questions

1. Now, do you feel more, the same or less able to manage your worries?
 - If more or less, please explain why.
2. Has taking part in this research changed the way you feel about yourself?
 - If so, how?
3. Has taking part in this research changed the way you feel about others?
 - If so, how?
4. Has taking part in this research changed the way you feel about your school?
 - If so, how?



Behaviour questions

1. Have you noticed any changes in your behaviour since doing this research (for example, the way you talk to others, the things you do in lessons or during lunch/break time, what you do outside of school, the way you approach your class or homework)?
2. Please explain and/or give examples of changes in behaviour.

Has any part of your experience in this research affected any changes in your life that you have noticed? Please explain.

What do you think could have made your experience in this research better?

Appendix H: Teacher information and consent form



Wellbeing Research Information Sheet for Teachers and School Staff

My Name is Tiffany Kearns and I am training to become an educational psychologist at the University of East London. As part of my training, I am interested in researching the impact of an empowerment process on young people's wellbeing. I would like to facilitate a student group discussion around their worries and ways to deal with them in school. Then students will feedback their ideas to school management in a method of their choosing. School have agreed to listen and respond to their ideas.

Why is this research being done?

In 2014 a health survey identified that young people in the local authority reported lower life satisfaction than was expected. This research will attempt to understand the worries of young people in the local area and provide them with an opportunity, where they are empowered to inform change to support their wellbeing and learning. If positive change is found, then the process may serve as a tool for other schools to use to support young people.

Which young people will be involved?

In a wellbeing/mental health PSHE lesson, teachers will distribute a questionnaire about young people's worries. Although, most people worry, students who report worrying often will be asked to take part in a peer, group discussion about their worries and the kind of support they might like to have to manage their worries. Teachers will be consulted about which students they think could cope in the group discussions.

What does this study involve?

1. In a PSHE lesson students will complete a questionnaire about their worries. Approximately eight volunteers per key stage will take part in a discussion group. I will speak to them prior to the group to explain the purpose of the research, ask them to complete two questionnaires (regarding their needs and wellbeing) and to give them the questions we'll be discussing.
2. During the discussion group, students will discuss their worries and agree upon changes they'd like to see in the school to support their wellbeing. They will also agree upon a way of feeding back to school management (e.g. face to face, in writing, a student representative, etc).
3. After students feedback, I will ask them to complete the three questionnaires again to measure any changes.
4. Finally, I will be asking the students to answer some questions (in a questionnaire) about their experiences in this research process.

Confidentiality

During the group discussion, I will record what is said using a tape recorder for reflective research purposes only and the recording will be destroyed when the research is finished. What is said in the group and in the questionnaires will be kept between us unless the student tells me something that means the young person or someone else is in danger.

After all of the information is gathered, I will write about what I have found in the form of a doctoral thesis, but I will not use names and I'll make sure that no one can identify who said what.

Data protection

All of the data gathered will be securely stored. You have the right to withdraw your data up until the completion of the data analysis and all data will be destroyed upon completion of the research.

What if I would like to find out more about this study?

If you have any questions about the study or if you would like to discuss this further, please feel free to contact me at:

e-mail: Tiffany.Kearns@centralbedfordshire.gov.uk

Thank you for taking the time to consider this study. It is completely voluntary. If you are happy to take part, then please complete the form below and return this to the school. Thank you.

Wellbeing Research Consent form for Teachers/School Staff

Name:.....

1. I have looked at the information about the project and I understand what it is about.
Yes ☐ No ☐

2. I am happy to participate in this research.
Yes ☐ No ☐

Signature..... Date.....

Appendix I: Parent information and consent form



Wellbeing Research Information Sheet for Parents/Guardians

My Name is Tiffany Kearns and I am training to become an educational psychologist at the University of East London. As part of my training, I am interested in researching the impact of an empowerment process on young people's wellbeing and learning. I would like to facilitate a student group discussion around their worries and ways to deal with them in school. Then students will feedback their ideas to school management in a method of their choosing. School have agreed to listen and respond to their ideas.

Why is this research being done?

In 2014 a health survey identified that young people in the local authority reported lower life satisfaction than was expected. This research will attempt to understand the worries of young people in the local area and provide them with an opportunity, where they are empowered to inform change to support their wellbeing and learning. If positive change is found, then the process may serve as a tool for other schools to use to support young people.

Which young people will be involved?

In a lesson focusing on wellbeing, teachers will distribute a questionnaire asking about young people's worries. It is normal for young people to worry, but at the end of the lesson, a list of wellbeing and mental health services in the county will be sent home with your child in case you and your child feels he/she needs support in this area (please see the same list included with this form). Although most people worry, some students who report worrying often will be invited to take part in the discussion group but only if they want to do so.

What does this study involve?

1. Students who consent to participate (i.e. student and parent consent) will complete a questionnaire about their worries and then some will be asked if they would like to volunteer in the group discussion.
2. From those who volunteer, I will speak to them prior to the group to explain the purpose of the research, ask them to complete two questionnaires (regarding their needs and wellbeing) and to give them the questions we'll be discussing.
3. During the discussion group, students will discuss their worries and agree upon changes they'd like to see in the school to support their wellbeing. They will also agree upon a way of feeding back to school management (e.g. face to face, in writing, a student representative, etc).
4. After students feedback, I will ask them to complete the three questionnaires again to measure any changes.
5. Finally, I will be asking the students (in a questionnaire) about their experiences in this research process.

Confidentiality

During the group discussion, I will record what is said using a tape recorder for reflective research purposes only and the recording will be destroyed when the research is finished. What is said in the

group and in the questionnaires will be kept between us unless your child tells me something that means your child or someone else is in danger.

After all of the information is gathered, I will write about what I have found in the form of a doctoral thesis, but I will not use names and I'll make sure that no one can identify who said what. The young people's responses will not be linked to their name, school or any personal details. The school will know who has been involved, but they will not know who said what.

Data protection

Your child's data will be securely stored. You have the right to withdraw your data until completion of the data analysis and all data will be destroyed upon completion of the research.

What if I would like to find out more about this study?

If you have any questions about the research or if you would like to discuss this further, please feel free to contact me at:

e-mail: Tiffany.Kearns@centralbedfordshire.gov.uk

Thank you for taking the time to consider this study. It is completely voluntary. If you are happy for your child to take part, then please complete the form below and return this to the school. Thank you.

Wellbeing Research Consent form for Parents/Guardians

Name:..... **Child's name:**.....

Home address (All capital letters):

1. I have looked at the information about the project and I understand what it is about.
Yes ☐ No ☐

2. I am happy for my child to participate in this research.
Yes ☐ No ☐

3. I am happy for my child's responses to be recorded by audio tape.
Yes ☐ No ☐

Signature..... Date.....

Appendix J: Mental health and wellbeing support services list (parent version)

Wellbeing and Health Support Services That May Be Helpful

(NB: Services below are separate from the research – see research information form)

It is perfectly normal for anyone to have worries; however, if you have concerns about your child's wellbeing that cannot be managed with their current support, then you may want to re-view and consider the support services listed below.



Your School

Your school can do a range of work to support wellbeing. If you would like to discuss any concerns you might have, contact the school and ask to speak to Student Services.

Counselling and Informal Support

Sometimes it helps to talk things over with others in a local support group or to talk to a trained counsellor.



- The local branch of the mental health charity **MIND** (<http://www.mind.org.uk/>) can put you in touch with a range of support groups that may be able to help you. <https://twitter.com/mindcharity>



- The **Samaritans** (<http://www.samaritans.org/>) provides confidential emotional support, 24-hours a day, for people who are experiencing distress, despair or suicidal feelings. Phone 08457 90 90 90 or look them up online. <https://www.facebook.com/samaritanscharity>

General Practitioner

If you have concerns about your wellbeing you can speak to your GP. They will probably ask you a range of questions about your health and talk more with you about how to help you.



Child and Adolescent Mental Health Services (CAMH)

CAMHS provide assessments, support and treatment for emotional and behavioural difficulties in children up to the age of 18. The service provides help to children and their family.

Contact: X
Telephone: X Email: X



Appendix K: Student information and consent form



Wellbeing Research Information Sheet for Students

My name is Tiffany and I want to know what upper school students worry about and what they think can be done to better manage those worries. I would like to get students together to talk about these issues and identify changes that can be made in school to help them with their worries. School management will listen and respond to your ideas in order to support you. I am interested to see how a process like this might affect the way students feel and learn.

What would I have to do?

- All students worry, so I will ask you to complete a questionnaire about worries in a lesson to find out more about how you feel. You will also be given a list of places you can go to if you want to get help with your worries.
- Some students will be asked to attend a pre-meeting for approximately an hour to discuss what we will do in a focus group and I'll ask you to complete some questionnaires your lives and how you feel.
- The focus group will meet for 1.5 hours to discuss student worries and identify changes that can be made in school to help students with their worries. I will record this to help me remember and think about what we discussed, but the recording will be deleted when the research is finished.
- In the groups, the students will decide how they want to feedback their ideas to the school.
- School management will listen and respond to students' ideas.
- After this, I will ask you to answer some questions about your experiences in this research (about your feelings, thoughts, behaviours and learning).
- Whatever you say will be kept between us. The only time I would have to speak to anyone else would be if you tell me something that means you or someone else is in danger.

Why would I do this?

- By volunteering to take part in this research, you can help identify ways to manage your worries and feel better. School will try to make changes in response to your ideas and this may help other students in your school too.

What will happen afterwards?

- I will write up what I have learned from you in the form of a doctoral thesis, but I won't use anyone's real name and I will make sure that no one can work out what you have said. If you change your mind, you can ask me to exclude what you have said in my research up until all of the information I've gathered has been analysed.
- If you would like to take part in this research, then write your name and tick the boxes on the other side of this paper.

Remember you don't have to take part if you don't want to.

Thank you ☺



Researching Wellbeing- Young Person Consent Form

My name is..... I am in year

1. I understand what Tiffany's research is about.

Yes ☐ No ☐

2. I would like to take part in the research by answering questionnaires, having a group discussion about my worries and ways to manage them, telling school management what I'd like to change and answering Tiffany's questions about what this process was like for me.

Yes ☐ No ☐

Signature..... Date.....

Appendix L: Mental health and wellbeing support services list (student version)

Wellbeing and Health Support Services That May Be Helpful

(NB: Services below are separate from the research – see research information form)

It is perfectly normal for anyone to have worries; however, if you have concerns about your wellbeing that cannot be managed with their current support, then you may want to review and consider the support services listed below.



Your School

Your school can do a range of work to support wellbeing. If you would like to discuss any concerns you might have, contact the school and ask to speak to Student Services.

Counselling and Informal Support

Sometimes it helps to talk things over with others in a local support group or to talk to a trained counsellor.



- The local branch of the mental health charity **MIND** (<http://www.mind.org.uk/>) can put you in touch with a range of support groups that may be able to help you. <https://twitter.com/mindcharity>



- The **Samaritans** (<http://www.samaritans.org/>) provides confidential emotional support, 24-hours a day, for people who are experiencing distress, despair or suicidal feelings. Phone 08457 90 90 90 or look them up online. <https://www.facebook.com/samaritanscharity>

General Practitioner

If you have concerns about your wellbeing you can speak to your GP. They will probably ask you a range of questions about your health and talk more with you about how to help you.

Child and Adolescent Mental Health Services (CAMH)

CAMHS provide assessments, support and treatment for emotional and behavioural difficulties in children up to the age of 18. The service provides help to children and their family.

Contact: X
Telephone: X Email: X



Appendix M: Pre-meeting standardised instructions

Pre-Focus Group Meeting

Script for pre-meeting

Introduction

Hi, my name is Tiffany and I'm the researcher who will be meeting with you if you choose to continue to take part. Thank you for coming to meet with me before the focus group. I was hoping to ask you to complete two questionnaires, explain the research in a bit more detail and make decisions as a group about what we'll do. Does that sound okay?

Questionnaires

Before we discuss anything, I'd like to ask you to complete the questionnaires. The reason is that it will help us to see if there are any changes in your views before and after the research is complete. I know that there are a lot of questions and you might feel bored or irritated answering so many questions, but it's important because it will help us to see if what we do together is useful and might be used to help other young people. However, you don't have to complete the questionnaires and if you do but later feel like you want to take it back before the research is finished, then that is your choice. Any questions? (autonomy – choice, rationale, empathy; relatedness -empathy) – Thank students for completing questionnaires.

Further introduction

I'd like to get to know you and your names, so can we do an activity where we say our names and one thing we like to do and/or one thing that's important to us? Does anyone want to go first? (If no one does, respond to this by volunteering to go first).

Research explanation

What is your understanding of what the research is about?

(NB: adjust response depending upon what they say – this shows you value their voice and will adjust your script depending upon what they say; this supports relatedness)

Local and national research tells us that there is a need to better support children and young people's wellbeing. Everyone worries about things and that's perfectly natural, but sometimes worries can get in the way of our wellbeing. Sometimes adults try to come up with ways to help young people but don't always ask the young people what they think would help. I believe you are experts in your lives. I value what you have to say and I think that if we work together to talk about what you think might help you to manage your worries then we can advise your school of what to do to support you and then possibly help other young people with their worries too. As a group you can decide what you'd like to feedback to school and how you do it. Essentially, I'm asking you to join me as a researcher to find out what might support students' wellbeing in school and then to advise school management about those support strategies because it might improve your wellbeing and other young people's. (relatedness: valuing voice, placing emphasis on the importance of their contribution as well as identifying a common goal).

Procedure

I am here to help you through this process, but your thoughts and feelings are very important, so I have some questions for you about what we'll do.

I'm going to give you some of the questions I'd like to discuss with you in a focus group next week. Could we discuss and decide on a day and time that works best for you?

In the focus group we'll talk the worries you might have and how to support them. There might be lots of different worries to discuss in a short period of time, so how do you think we could address this (e.g. choose to discuss the most common ones amongst the group, break up into pairs who have a similar worry and feedback to the group, etc)?

How would you like the focus group to work (e.g. We can sit in a circle or around a table discussing the questions or write our thoughts on flip charts hanging around the room and then discuss or throw a ball around to indicate who speaks)?

Also, it might be upsetting to talk about your worries and that's ok, so if you feel like you want to leave and speak to someone during the session, I've asked Mrs X to be available. Is there anything else that you think you might like to do if you become upset?

I'd like to remind you that whatever you say will be kept between us. The only time I would have to speak to anyone else would be if you tell me something that means you or someone else is in danger. I will record the session so I can remember what we say, but I will not share this with other people. As a group you can decide what you want to share with senior management and how you want to do that.

Please read the questions. I'd like to ask you to think about your responses between now and next week when we meet again. Do you have any questions or concerns about the questions? If you think of anything you'd like to ask before we meet, you can e-mail me at tiffany.kearns@centralbedfordshire.gov.uk.

Finally, I'd like to thank you for your time and contributions today. You've helped to identify what our research will look like, so you have successfully completed your first step as a co-researcher. (competence)

Appendix N: Focus group questions

Focus group Questions

Understanding worry questions

1. What kind of things do students worry about?
2. What kind of things do you worry about?
3. Why do you think you worry about them?
4. How does worry about these things affect your life?

Managing your worries questions

1. What are you already doing to manage any worries that you might have? Is there anything else you could do that you think would help?
2. Are your worries ever helpful? When?
3. Do you think your peers in the school could help you manage your worries? If so, how?
4. Do you think your teachers or school staff could help you manage your worries? If so, how?

Appendix O: Co-researcher award



Appendix P: Overview of research and agreement contract for schools

Applying self-determination theory (SDT) in an emancipatory study with anxious adolescents to investigate any changes in anxiety and wellbeing

Overview

According to Deci and Ryan's (2001) self-determination theory, autonomy, competence and relatedness are three basic human needs; when they are nurtured in children and adults, there are measurable improvements in motivation, anxiety and wellbeing. Consequently, this research aims to see if there are improvements in wellbeing and a reduction in anxiety through a student led, empowerment process, which focuses on promoting the satisfaction of SDT's three basic needs. Self-reported anxious students will take part in focus groups to discuss their anxieties and develop ideas about how those anxieties may be better managed in a school context.

This research aims to answer the following questions:

1. What do adolescents (14-18 years) report the causes of their anxieties to be during the empowerment process?
2. What school based support mechanisms will adolescents suggest to help to manage their anxiety during the empowerment process?
3. Will students report a change in need fulfilment (i.e. SDT's three basic needs) after the empowerment process?
4. Will students report a change in levels of anxiety and general wellbeing following the empowerment process?

Procedure for consent and data collection

In simple terms, this research will involve the selection of two groups of students (one from year 9 and 10 and one from year 11 and 6th form). An anxiety screener (i.e. SCARED-R) will be used to identify participants. The researcher will meet with each group in a pre-meeting to prepare for the focus group and collect more pre-data. This will be followed by a focus group to discuss student worries and support strategies. Then a final feedback meeting/forum will take place where students feedback their ideas to school management, who then respond to student requests.

Step 1 - School staff briefing and consent (1hr)

Step 2 - Consent from parents prior to student consent gained in PSHE lesson

Step 3

- Consent from young people and anxiety questionnaire/pre-data collection in PSHE lesson with consenting staff (NB: the briefing will focus on this step in depth).
- The anxiety questionnaire will identify the sample and the class teacher will be consulted about the focus group make up.

Step 4 - Pre-focus group meeting and more pre data collection (approximately one hour)

Step 5 - the focus group (1.5 – 2hrs after school)

Step 6 - Students feedback to staff to inform possible policy change and/or school provision to support student wellbeing (.5 – 1hr)

Step 7 - Following the feedback to staff, students will complete post measurement.

Expectations Agreement

What school can expect from me

- I will deliver a briefing to interested staff on the research and what to do
- I will be available to answer additional questions for staff, students and parents.
- I have created and will electronically send information, consent and support services documents to be given to parents and students.
- I will consult teachers on the appropriate selection of students for the focus groups.
- I will possibly deliver additional training if the research uncovers a need for it.
- I will facilitate the empowerment process (i.e. intervention) with anxious students in three separate meetings for a group of yr 9 and 10 and a group of yr 11 and 6th form students (approximately 8 in each and a total of 6 meetings)
- I will complete the data analysis for all pre and post measures.
- I will provide an evaluative report on the impact of the intervention.

What I would expect from school

- School will send out and collect information the sheet, consent form and support services list to parents.
- Consenting teachers will introduce the research and collect the anxiety questionnaires as well as information and consent forms in a PSHE lesson.
- Teachers will advise on the formation of the groups (e.g. for safeguarding reasons who would cope).
- School will provide logistical support (e.g. provide a space for the pre-meetings, focus groups and feedback meetings/forum, arrange for management to be at the feedback meeting if it's decided to do in person).
- School will have someone from the SEN-Pastoral support team available to support students during focus group meetings (i.e. in the event that any of them become upset when discussing their worries and need to step out of the group).
- School management will respond to student requests (possibly negotiate if some suggestions are not feasible).

Head Teacher

Date_____

SENCO

Date_____

Researcher

Date_____

Appendix Q: E-mail to senior management

From: Tiffany Kearns <Tiffany.Kearns@XXXX.gov.uk>

Date: 22 November 2016 at 08:54:24 GMT

To: XXX

Subject: SLT feedback

Good morning,

Happy Tuesday! It's no longer Monday☺

As we discussed, I wanted to send you a short passage to give the SLT staff member listening to the student feedback an overview of the research and what might be useful for them to do in the session.

An overview of the research: National and local research indicate a need to better support children and young people's (CYP) wellbeing and anxiety has been identified as the second most common difficulty for CYP after conduct disorders (Department of Health, 2015). Schools provide a good context in which to offer preventative and supportive interventions to look after CYP's wellbeing. According to Deci and Ryan's (2001) self-determination theory (SDT); autonomy, competence and relatedness are three basic human needs. When these needs are nurtured in children and adults, there are measurable improvements in anxiety and wellbeing. Consequently, this research aims to see if there are improvements in wellbeing and a reduction in anxiety through a student led, empowerment process, which focuses on promoting the satisfaction of SDT's three basic needs. Self-reported anxious students will take part in a pre-meeting where SDT is first applied and then a focus group to discuss their worries and develop ideas about how those worries may be better managed in a school context. Finally, students will feedback to senior management their experiences and suggestions for the school that they believe will help to support their wellbeing.

SLT staff member role: As this research aims to nurture the three basic needs according to SDT, the SLT staff member could further support these needs by doing the following: nurturing *relatedness* could be done by actively listening, presenting as open and friendly, valuing what students say and empathising with the students' experiences/emotions as they feedback; nurturing *competency* could be done by recognising and labelling their accomplishments in the process (e.g. the examples you've used are really useful in helping me to understand what you mean) or providing scaffolding to support them if they get stuck (e.g. asking them questions to help them clarify what they're saying) and nurturing *autonomy* could be done by acting upon on their suggestions (i.e. saying how school will implement their suggestions and why you think that might be useful for other students) and/or asking them about alternatives of what could be done if their suggestions are not feasible (e.g. our budget may not allow for building a new pool, but what do you think about lunch time or after school activity clubs?).

I hope that helps to sum things up, but please let me know if there are any questions or concerns.

Thank you,

Tiffany

Appendix R: Example student feedback letter

Dear X,

Thank you for agreeing to be a co-researcher in a school based study on wellbeing.



In a group you:

- made decisions about what the research process would look like.
- identified common worries that students have (e.g. "School work, HW, grades") and talked about how those worries affect your lives (e.g. "study stress feels overwhelming to fit everything in").
- discussed what you and others were already doing to effectively manage your worries (e.g. "go on bike/walk", "someone to talk to "at school).
- developed suggestions of what the school could do to better support student wellbeing by addressing your worries (e.g. "teach how to learn", "club for every subject").
- gave feedback to senior management on student worries and suggestions for school improvement.



Senior management responded to your feedback by making adjustments. For example, lunch time subject clubs will be re-advertised to include younger students and year 10s can have access to the school programme that teaches students how to learn.

When asked about changes in the amount of worries you have after the research was completed, you said that you had "less because I have realised I don't care what others think" and now "I ignore judgements about me". You also noticed that your relationships have changed since taking part in this research because "I have talked to more people I usually wouldn't." Lastly, when asked if taking part in the research changed the way you feel about your school, you said, "yes, I now know there is options for study."



Your contributions to the research are important because you're an expert on how you think, feel and behave as a young person and you have now changed the way your school supports wellbeing for other students. Plus, your feedback about what has changed since starting the research suggests that you have managed to improve your own wellbeing too.



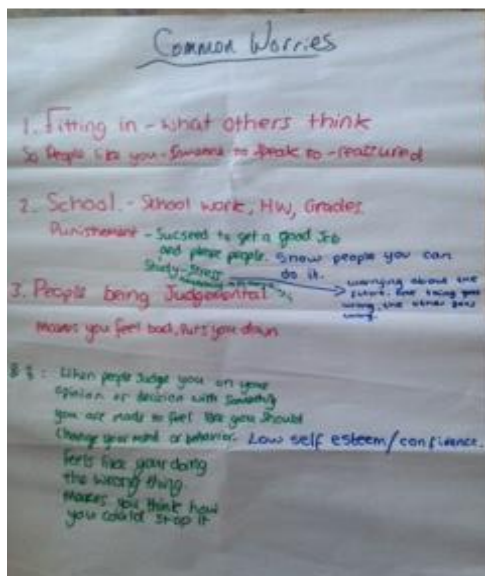
It has been a pleasure to work with you and I wish you the best of luck in the future.

Kind regards,

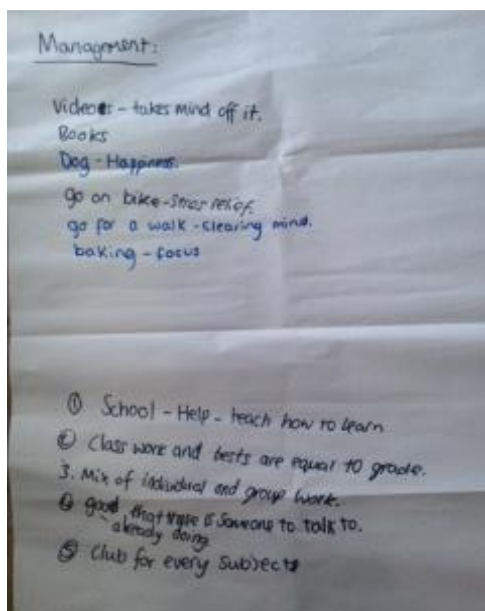
Tiffany

Appendix S: Example flip chart papers for one group

What YP worry about and why



What supports wellbeing



Appendix T: Example transcript of a semi-structured questionnaire

Participant responses are in green and bold



Thinking questions

1. Do you have more, the same or a less amount of worries as before the research?
Less
- If more or less, please explain.
I understand that I'm not alone and others feel the same way I do
2. Has the way you think about your worries changed since doing this research (For example, you may still have those worries but you don't see them as being as scary anymore.)?
I can cope better.
- If so, how?
I've learnt how to block it out and to tell myself to stop.
3. Do you think that your ideas and suggestions are important to others?
Yes
- What makes you think that?
I am making a difference to school management and helping others
4. Do you think that your ability to make changes in your own life has changed?
Yes
- If yes, please explain.
I am more organized and understand how to help myself more
5. Do you think your relationships have changed since taking part in this research (for example, seeing yourself as being closer or more distant to others)?
Closer
- If so, please explain.
Other people feel the same therefore I am not alone in my worries anymore
6. Looking back, do you feel more, the same or less in control of making important decisions for yourself?
More
- If more or less, please explain.
I don't have to focus on my worries as much therefore I can make my own decisions without a worry taking over my thoughts.



Feeling questions

7. Now, do you feel more, the same or less able to manage your worries?
More
- If more or less, please explain why.
Others have suggested some things I can do and I can cope
8. Has taking part in this research changed the way you feel about yourself?
- If so, how? **Better**
I'm more confident after speaking in front of others.
9. Has taking part in this research changed the way you feel about others?
Yes
- If so, how?
I understand others have worries too and I'm not alone in the way I think.
10. Has taking part in this research changed the way you feel about your school?

Yes

- If so, how?

I know about pastoral care and also it made me realise how dreadful some of my teachers are at behaviour management.



Behaviour questions

11. Have you noticed any changes in your behaviour since doing this research (for example, the way you talk to others, the things you do in lessons or during lunch/break time, what you do outside of school, the way you approach your class or homework)? **Yes**
 - Please explain and/or give examples of changes in behaviour.
I sympathise with others more and I try to help others out with their worries.
12. Has any part of your experience in this research affected any changes in your life that you have noticed? **Yes**
 - Please explain.
I've started being more organised and going to yoga to chill out.
13. What do you think could have made your experience in this research better?
Nothing. The people were really nice and Tiffany was engaging and understanding which made me feel comfortable.

Appendix U: Example of focus group thematic analysis step 5

TA STEP 5 - Explicitly labelling themes: organising extracts under each theme to make meaning of them and tell a coherent story for each

Adolescent reported causes of worries themes at school (RQ1)

Theme 1: Factors thwarting all SDT needs

Subthemes:

- Need to perform socially and academically
 - Fitting in - what others think so people like you - someone to speak to - reassured
 - Social - self-conscious, attractiveness - money - clothes - makeup, stereotypes, peer pressure - drugs, drinking, fitting in, partys, helpless, devalued, fear of rejection
 - Being judged - from peers, don't know who to trust; self-conscious - paranoid, checking yourself, perceiving something differently; act differently - change to fit in, what you think is acceptable of what they want *
 - 1 and 3. When people judge you on your opinion or decisions with something you are made to feel like you should change your mind or behaviour. Low self-esteem/confidence. Feels like your doing the wrong thing. Makes you think how you could stop it.
 - School - school work, HW, grades. Punishment - succeed to get a good job and please people. Show people you can do it. *
 - What happens in the future? - exams, UCAS, more indepth one to one on application process
 - UCAS - offers, personal statement, interview, deadlines, grades, fear of disappointment - time consuming, competition for attention, grades with peer, impacts priorities, want to live up to expectations for us, parents, teachers
 - Not understanding work - fear of being judged, peers and teachers;
 - Exams - unnatural/artificial, stress, panic and anxiety, test of memory, government makes exams harder/more important than necessary

- Social and academic judgement
 - Fitting in - what others think so people like you - someone to speak to - reassured
 - Social - self-conscious, attractiveness - money - clothes - makeup, stereotypes, peer pressure - drugs, drinking, fitting in, partys, helpless, devalued, fear of rejection
 - Being judged - from peers, don't know who to trust; self-conscious - paranoid, checking yourself, perceiving something differently; act differently - change to fit in, what you think is acceptable of what they want
 - 1 and 3. When people judge you on your opinion or decisions with something you are made to feel like you should change your mind or behaviour. Low self-esteem/confidence. Feels like your doing the wrong thing. Makes you think how you could stop it. *
 - People being judgemental - makes you feel bad, puts you down
 - School - school work, HW, grades. Punishment - succeed to get a good job and please people. Show people you can do it.
 - UCAS - offers, personal statement, interview, deadlines, grades, fear of disappointment - time consuming, competition for attention, grades with peer, impacts priorities, want to live up to expectations for us, parents, teachers

Commented [TK1]: Competency around being able to fit in to make other people like you so linked to relatedness as well (i.e. the need to connect to others and have caring, reciprocal relationships)

Commented [TK2]: Competency about looking and behaving in a way that makes you accepted and reference to 'helpless' indicates an perceived absence of competency (i.e. ability to have an effect on one's environ)- pressure to fit in/be **socially competent conflicts with autonomy** (i.e. free choice to engage in valued activities) because they don't value or want to do those (e.g. partying) activities - additionally this affects relatedness as rejection creates distance

Commented [TK3]: Competence and relatedness and autonomy because you change what you would have freely chosen to do

Commented [TK4]: 'making you feel like you should change your mind or behaviour' indicates conflict with/undermining **autonomy** again because what they freely chose to do is being questioned - (comp, auto and related as judgement distances them from others)

Commented [TK5]: Competence - afraid of not succeeding and wanting to show others you can do it; relatedness - please people; **autonomy undermined** - by punishment as this is a control on previously chosen behaviour

Commented [TK6]: Competence - future success; relatedness - support from staff for individ app

Commented [TK7]: Competence - achieving what they want; relatedness - competing for attention and pleasing adults as well as self (which also **affects autonomy** as it can affect their choice to do what they want in the future - controlled by grades)

Commented [TK8]: Competency - not understanding; relatedness - being judged

Commented [TK9]: Competency - too hard; **autonomy undermined** - govt controls exams

Commented [TK10]: Competency around being able to fit in to make other people like you so linked to relatedness as well (i.e. the need to connect to others and have caring, reciprocal relationships)

Commented [TK11]: Competency about looking and behaving in a way that makes you accepted and reference to 'helpless' indicates an perceived absence of competency (i.e. ability to have an effect on one's environ)- pressure to fit in/be **socially competent conflicts with autonomy** (i.e. free choice to engage in valued activities) because they don't value or want to do those (e.g. partying) activities - additionally this affects relatedness as rejection creates distance

Commented [TK12]: Competence and relatedness and autonomy because you change what you would have freely chosen to do

Commented [TK13]: 'making you feel like you should change your mind or behaviour' indicates conflict with/undermining **autonomy** again because what they freely chose to do is being questioned - (comp, auto and related as judgement distances them from others)

Commented [TK14]: Competency questioned/undermined and distances from other (relatedness) by 'putting you down'

Commented [TK15R14]:

Commented [TK16]: Competence - afraid of not succeeding and wanting to show others you can do it; relatedness - please people; **autonomy undermined** - by punishment as this is a control on previously chosen behaviour

Commented [TK17]: Competence - achieving what they want; relatedness - competing for attention and pleasing adults as well (...)

- Not understanding work - fear of being judged, peers and teachers; *
- Social and academic pressures/expectations
- Social - self-conscious, attractiveness - money - clothes - makeup, stereotypes, peer pressure - drugs, drinking, fitting in, parties, helpless, devalued, fear of rejection *
- Study - stress - overwhelming to fit everything in - worrying about the future. One thing goes wrong, the other goes wrong.
- teachers don't understand how much we have to do; demotivated - too much pressure, anxious leads to more worries *
- Pressure for exams - from teachers, parents, yourself
- Exams - unnatural/artificial, stress, panic and anxiety, test of memory, government makes exams harder/more important than necessary
- Stress impacts your life - work over half/end of term increases stress
- UCAS - offers, personal statement, interview, deadlines, grades, fear of disappointment - time consuming, competition for attention, grades with peer, impacts priorities, want to live up to expectations for us, parents, teachers
- School - school work, HW, grades. Punishment - succeed to get a good job and please people. Show people you can do it.
- Exams - unnatural/artificial, stress, panic and anxiety, test of memory, government makes exams harder/more important than necessary
-

Commented [TK18]: Competency - not understanding; relatedness - being judged

Commented [TK19]: Competency about looking and behaving in a way that makes you accepted and reference to 'helpless' indicates an perceived absence of competency (i.e. ability to have an effect on one's environ)- pressure to fit in/be **socially competent conflicts with autonomy** (i.e. free choice to engage in valued activities) because they don't value or want to do those (e.g. partying) activities - additionally this affects relatedness as rejection creates distance

Commented [TK20]: Competency - managing and achieving; **autonomy** - undermined because can't engage in free choice activities when everything goes wrong

Commented [TK21]: Relatedness - don't understand; competency because too much pressure indicates perception of inability to manage

Commented [TK22]: **Autonomy** - pressure indicates perceived control

Commented [TK23]: Competency - too hard; **autonomy undermined** - govt controls exams

Commented [TK24]: **Autonomy** - stress and teacher assigned work controlling what you do over breaks

Commented [TK25]: Competence - achieving what they want; relatedness - competing for attention and pleasing adults as well as self (which also **affects autonomy** as it can affect their choice to do what they want in the future - controlled by grades)

Commented [TK26]: Competence - afraid of not succeeding and wanting to show others you can do it; relatedness - please people; **autonomy undermined** - by punishment as this is a control on previously chosen behaviour

Commented [TK27]: Competency - too hard; **autonomy undermined** - govt controls exams

Commented [TK28]: all first 3 points are relatedness but this one is also competency - i.e. perception that scaffolding for understanding learning material was not provided to afford experience of competency

Theme 2: Factors thwarting competence and relatedness only

Subtheme

- Relationship with teachers
- teachers don't understand your point of view, you weren't taught properly; can't ask for help;
- Teachers having different relationships with students i.e. one rule for one - demotivating - distracting
- a teacher makes you like the subject, equality, no favouritism, care about you personally, engaging, makes jokes

Adolescent suggested support to manage school worries (RQ2)

Theme 1: Factors supporting all SDT needs

Subthemes:

- learning support suggestions
- Personalised learning - getting a balance
- More individual check ups to see if okay
- School - help - teach how to learn
- Class work and tests are equal to grade
- Mix of individual and group work
- Club for every subject(outside of class time, maybe lunch)

Commented [TK29]: competency

Commented [TK30]: competency and relatedness support

Commented [TK31]: Suggestion to empower - improve competency and **autonomy** (control in learning choices made to effect performance)

Commented [TK32]: competency

Commented [TK33]: relatedness (group) and competence (individual success and contribution to group)

Commented [TK34]: competency support and autonomy as they discussed going to subjects they couldn't take to fulfil interest

- More 1 to 1 sessions (personal statements) - subject help
- More information with teachers and external students
- Peer support suggestions
- 1 year older peer mentor - school, expectations, friendships
- 6th form more involved with verticle tutoring - more structured help for lower years from us
- Celebrate differences (this was around working in peer groups in class with different strengths)
- Allow freedom of speech - study groups - not judged (again this was around working with a peer group in class that was accepting - although this point and the one above would likely need to be developed by adults in school the support was seen as needing to come from peers)
- Pastoral support suggestions
- Good that there is someone to talk to (already doing - this meant they identified that the school was already doing this)
- Specialist sixth form support team (always have these at anytime to see)
- Different location for the support team(i.e. not in common room)
- Warmer welcome
- Poster to explain who you can go to if there is a problem
- House leaders are helpful
- Talk to family (NB: some had mums in school)
- Talk to trusted teacher

Commented [TK35]: competency support

Commented [TK36]: competency support

Commented [TK37]: Relatedness and competence as peer mentor provides scaffolding for success (e.g. understanding expectations)

Commented [TK38]: Relatedness and competence as they want opp to successfully help - this is a free choice reflecting values - so supporting autonomy

Commented [TK39]: Competence but relatedness in terms of closeness to others through common recognition of different strengths (as discussed in focus group) - need to connect, caring, reciprocal relationships

Commented [TK40]: Relatedness and competency as judgement indicates a perception of not being successful and autonomy to engage in talk/behaviour of your choosing

Commented [TK41]: All 4 relatedness

Commented [TK42]: Relatedness as well as autonomy and competence because info provides the info need to make a free choice decision to seek support to have an effect on their situation/feelings

Commented [TK43]: relatedness

Commented [TK44]: 2 - relatedness and competency as they are seeking scaffolding to experience competency in problem resolution that allows them to make a decision (autonomy)

Theme2: Factors supporting competence and autonomy only

Subthemes:

- Independent problem solving strategies
- Deal with the problem yourself to rest your mind
- Write down your feelings and how to solve

Commented [TK45]: Both - competency and autonomy as actions to resolve provide opportunities to feel competent and autonomy because the individuals are choosing/developing own plans for resolution actions

Theme 3: Factors supporting autonomy and relatedness

Subthemes:

- Enjoyable activity engagement to cope with problem
- Videos - takes mind off it.
- Books
- Baking-focus
- Dog - happiness
- Do activities to keep mind off,
- Go for a walk - clearing mind
- Or do activities to release anger
- Cry
- Go on bike - stress relief

Commented [TK46]: All 8 represent autonomy - free choice to engage in valued activities as a means for changing affect

FACTORS THWARTING NEEDS (WORRIES) HAD APPROXIMATELY THE SAME NUMBER OF SUPPORTING EXTRACTS (8 TO 9)

FACTORS SUPPORTING NEEDS (SUGGESTIONS) HAD MORE LEARNING AND PASTORAL SUGGESTIONS (8 EACH) COMPARED TO PEER SUPPORT (4) SUGGESTING STUDENTS SAW ADULTS SUPPORT AS BEING MORE CRUCIAL TO MANAGING WORRIES AND IMPROVING WELLBEING